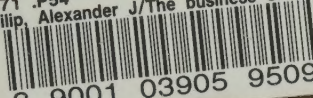


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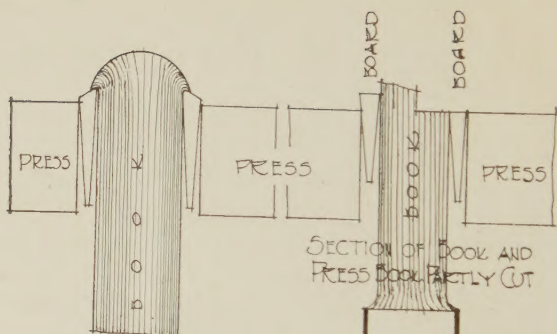
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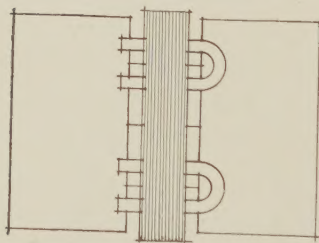


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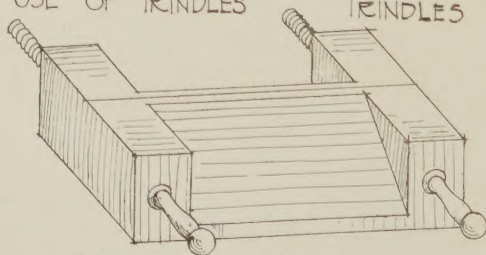
AFTER DACKING



USE OF TRINDLES



TRINDLES



FINISHING

PRESS

The Business of Bookbinding

Bookbinding from the point of view of the binder, the publisher, the librarian and the general reader. With chapters on the manufacture of binders' leather and cloth, and a description of a working bindery, together with a glossary of terms used in leather and cloth manufacture and bookbinding.

BY

ALEX. J. PHILIP

*Hon. Sec. of the Book Production Committee of the
Library Association.*

*Author of "The Production of the Printed Catalogue,"
"A Dickens Dictionary," etc., etc.*

LONDON

STANLEY PAUL & CO., 31, ESSEX ST., W.C.

1912



DEDICATED TO THOSE MEMBERS OF OUR PROFESSION WHO,
IF ALLOWED TO DO WHAT THEY DESIRE TO DO, WOULD
PERFORM MORE THAN THOSE WHO STAND IN THE WAY
OF THEIR PERFORMANCE, BELIEVE THEM CAPABLE OF
ACCOMPLISHING.

157103

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Typical illustration of distribution of fibres.

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'Wave' marks in the direction of ...



SPLIT SECTION.

PREFACE

THE conditions of the bookbinding trade—I say the trade advisedly to distinguish it from the work of the craftsmen—have undergone many changes during the past few years, some of them changes of a most disastrous kind. The genesis of these changes has been traced variously to events occurring a hundred years ago, to a hundred and fifty, three hundred years ago, a thousand years ago, and even to the very beginnings of written history when, probably, cheaper forms of cylinders or cheaper makes of bricks were hailed with the acclamation that greets the manufacture of a new material for publishers' covers at a penny a yard less than the cheapest fabric previously offered. The fact that these 'cheap' bricks may have long since crumbled to dust, and only the well-made tablet has survived, is not an example sufficiently awful to deter the present-day publisher, bookseller, or whoever may be responsible, from striving,

not after good work, but after that elusive 'farthing a copy' which is always the 'margin of profit'; because few, if any, publishers would pretend for a moment that more than a very small portion of the works issued by them are worthy to live for ever.

There is, however, a certain proportion of the books issued each year dealing with various branches of knowledge which may live for many years—in some cases for centuries—and must be preserved for a certain period, if only until they are superseded by new publications. These books, some of them not low in price, have been subjected to the same Juggernaut policy of 'cutting the expenses.'

One of the objects of this book is to stem in some measure, if it is possible, this disastrous policy. And more and more each year, as time goes on, the libraries—public, university, and collegiate, and those large private collections better described as semi-public libraries, become the permanent repositories of books of permanent interest and value. The business of book-binding, as understood by them, is exhaustively treated—exhaustively so far as the space at my disposal will permit in the following pages,

The book lays no claim to being an historical account of anything; it does aim at being practical, aggressively practical perhaps. At the same time, I must warn my readers that it will be useless to look for startling disclosures of trade secrets. Such trade secrets exist in bookbinding and the trades subsidiary to it, as they exist in every trade. But while it has been necessary to restrict the description of a trade bindery, a cloth factory, and a leather tannery to specific instances, it may be clearly understood that no trade influences have been allowed to dictate the policy of the book in any degree. I may add that this volume in the series of uniform handbooks was planned long before the publication of 'The Production of the Printed Catalogue' in August, 1910, and the delay in the date of publication, originally intended to be during the month of July, last year, was put back on account of the publication of a book on another branch of the subject.

While the work will be found of use to the student sitting for the examinations of the Library Association and other learned bodies, it has been written chiefly for the use of those who have to deal with binding as a practical matter involving financial

considerations—in other words, it has been written as a practical handbook on the business of bookbinding.

Many thanks are due to Clayton Beadle, Esq., for the loan of the photomicrographs illustrating the chapter on paper; to Professor H. R. Procter for the chapter on leather manufacture; to J. Drew Appleby, Esq., for the very complete and unique glossary of leather terms; to E. Egerton, Esq., for the glossary of terms used in cloth-making; and to B. Riley, Esq., for that relating to bookbinding, as well as to Messrs. E. and J. Richardson for the sketch drawings illustrating the preparation of leather.

GRAVESEND,

July, 1912.

ALEX. J. PHILIP.

CHAPTER I

INTRODUCTORY: THE TREND OF MODERN BINDINGS

THE object of the book is to throw light upon a subject not treated in the same way and from the same standpoint elsewhere, and not to describe the making of paper, which can be seen in any encyclopædia; nor to trace the history of bookbinding, which has been so admirably done by authorities; nor to endeavour to instruct a workman from an amateur's standpoint how he should do his work; but to tell the purchaser how to obtain the goods he requires and the various 'values' of those goods.

Just what is the trend of modern ideas of bookbinding at any particular moment is difficult to say, as there are so many theories being tossed about, unweighted by the knowledge of practice; and so much war taking place between rival factions,

some of the partisans of which blindly follow a fashion set them by others. Very largely, however, it consists of a return to the earlier standards, as to some extent a protest against the cheapening process that has advanced with appalling rapidity during the last decade or two. This cheapening process just referred to is not always understood : it is called variously, economy of production, competition, machinery, and other names, but while it is partly due to these causes and others, it is due to neither of them altogether.

If the process is carefully examined, it may be seen how far each of these causes has contributed to the total result. I suppose one may say that the binding and, in fact, the general production of novels sets the standard for other classes of work. If we go no further back than the 'three decker' stage we find a comparatively sound standard of production in paper and in binding. When the three-volume novel was discontinued, however, and its place was taken by the six shilling volume, the first general step in the recent degradation of the materials of production occurred. On the other hand, many of the six shilling novels issued then were admirable. This is evident from the condition of those

copies of them still in existence, which are eagerly sought after by librarians and others for replacement of stock. Books of other classes published at higher prices were not affected at once. It was not long, however, before the reduction in price, from 31s. 6d. to 6s. was made the excuse for the introduction of cheaper materials, partly as the result possibly of publication at the author's expense; partly because the publishers saw in it the prospect of larger profits, or less risk of loss; partly as the result of machinery *not properly tended*; and partly the result of the offer of lower prices by competing houses of manufacturers, who in this way, by undercutting and outbidding secured, or hoped to secure, orders which would otherwise pass them. It was found that if the public in their capacity of purchasers noticed the introduction of inferior materials they did not object either long or loudly; and gradually these little 'economies' were applied to books of other classes. The half-tone block came along and a special paper became necessary. This paper, at its best, is not very objectionable. But it has not been in use long enough to say what its lasting properties are. However, the cheaper qualities, without any doubt, are of a

somewhat temporary nature. Still the public accepted these conditions without complaint; and it was then surmised that books were not required to be of a permanent nature. As a result of this, there is a now generally accepted doctrine that it is somewhat fortunate that the books—droppings of the press—will not live materially because they are not intrinsically worth keeping alive. This is a damnable doctrine for the literature of the country, on which it reacts with inevitable disaster. It is good for an author to write books under the fear of starvation, for his daily bread, so far as his works are concerned: some of the purest pearls of our language have been written under these circumstances, at great cost to their writers it is true, but it is not good for his work to write for other people's daily consumption. Books are now becoming more and more bound volumes of the daily press, fit only when read for the paper vat or for wrapping-paper in an oilshop: this as a result of the 'cheapening process,' the ultimate involutions of which it is impossible to see.

Side by side with this, the inevitable change was taking place: change as a substantive, no matter what the change might be, so long as it appeared different

from something going before: such is fashion. And fashion, in the binding of books, is a matter to be reckoned with. This demand for change, so far as it existed apart from the natural idiosyncrasies of humanity, was another of the deplorable results of the cheapening process. There were publishers and book-lovers who, however much they might be compelled to resort to it for their commercial preservation, did not love it. They protested and resisted with more or less force, and with but little success. Their success consisted largely of the introduction of this perpetual change; presumably on the hypothesis that if it could not be better it could be scarcely worse. In many cases, however, it has proved worse. Not perhaps under the best conditions, but under those mediocre conditions which are natural to so much of the production of books. The public has not protested openly, but in an insidious way, and most effectively. Where are now the book-collectors or book-buyers of the past? Education has spread, wealth is greater, and the reading public has increased a thousand-fold and more during the past twenty years. Yet probably the circle of buyers of a well-written book, well produced and presenting a good ap-

pearance, is no larger than it was, and may be even smaller. It is not only foolish but futile to blame the circulating and public libraries. The reason must be looked for elsewhere, and it may be found in the fact that a man of the middle classes does not care to pay anything from 4s. 6d. upwards to read a book which, when he has read it, he cannot preserve because it is not a thing of taste and beauty, and will not remain a bound book for more than a year or two. Cheap productions, that is low-priced books both new and reprints, are in effect nothing but visible efforts to coax the public to buy books by quantity which they cannot obtain in quality. But they are bought chiefly by those people who are under the impression that they are 'collecting.' Day by day it is announced in one or more papers in some form or another that there is no need for higher-priced books, when others can be bought at the nearest draper's or stationer's for a few pence. I wonder how much of their own statement the writers believe. As well might one say there is no need for architectural beauty or scientific stability in our buildings; no need for permanence in our arts; and no room in our lives for joy and pleasure.

There are not wanting signs, however, of a general awakening. And although it is still change, it is a return to the early styles and materials, before 'change' because synonymous with cheapness. It is evident in regard to binding; and probably paper will follow in its wake. So much depends upon the workmanship; and workmanship, contrary to the legal pre-script, cannot be defined or described in a contract note or a specification.

CHAPTER III

THE CHOICE OF PAPER

IT will be found elsewhere that I have expressed the opinion that the paper on which a book is printed makes the standard by which the binding for the book is selected. There is no doubt that this is the case. A publisher would be more or less than human if he gave a book a better binding than the paper deserved. It becomes therefore a matter of some interest to look into this question of the paper on which books are printed. I do not propose to go into the matter at any length, or to any great depth.

The price of paper is considerably less than it used to be, partly as the result of improved machinery; partly, and more largely, as the result of the introduction of more numerous materials for its manufacture. But also, and to some considerable

extent, because new paper is, as it were, only hired out to the purchaser, the used paper, apart from that small quantity used by the housewife to light her fires, finding its way back to the mills as waste. At the present time the price of paper appears to be on the rise, but it is still very much less in price than it was forty years ago, and in spite of fluctuations is not likely to reach the high prices in vogue some fifty or sixty years ago.

Rags, straw, wood, esparto grass, and minerals all go to the making of a piece of paper. But the strangest feature of present-day papers is that the same proportions of component parts do not always give a paper of the same textile or tensile strength, or even of the same wearing qualities. It has been said, and I believe with truth, that it is impossible to draw up a perfectly satisfactory paper specification, so much depending upon the beating and the bleaching and the other intricate operations through which the pulp passes before it is delivered as paper.

A reference to the illustrations given will show the uninitiated that the fibres of the paper run for the most part in one direction. This shows, although it does not always govern, the way in which a book

is printed and bound. The strength of a piece of paper is always greater in one direction than another. The extent of the deterioration of the last ten years has been given as 50 %. There are now some thousands of makes of book papers, and it is doubtful if any fixed average can be even approximately arrived at; nevertheless, there is no doubt that considerable deterioration has taken place. This, however, does not necessarily suppose any alteration in the materials of which the paper is made. But I am strongly of opinion that it is the result, to an enormous degree, of the re-pulping process that is constantly taking place by the gathering and sale of waste paper. There must be some part of the ingredients of almost every piece of paper in general use that has been made and re-made: here we have a palimpsest beside which those of the ancients are as nothing. How far the process can be carried it is difficult to say. Already, however, the results, if these are the results of this process, are execrable.

The surface of a paper has an important bearing on the life of a book. A rough uneven surface gathers dirt much more quickly than a well-calendered paper, and, so long as the surface is not obtained

by the excessive use of clay or other mineral, a paper with a good surface as a rule is much less easily broken or cracked than a soft, spongy and rough-faced paper: cf. antique wove. A new paper is reported which is said to possess all the 'advantages'—cheapness, bulk, and the absence of weight—of the commonest paper, with the additional advantage that it has something of a surface.

The manufacture of paper in 'out' and odd sizes and on reels, makes it somewhat more difficult for the publisher or the printer to ensure that the run of the paper will be in the right direction when the book is bound.

However, the illustration from photomicrographs which I am able to reproduce by permission of Messrs. Clayton Beadle and Stevens will show, at a glance, more than it is possible to tell within the narrow compass of a single chapter. There is one class of paper which every one is apparently agreed upon should be tabooed for all classes of book work, i.e., what is known as 'mechanical wood.' In the manufacture of this paper the wood is ground down to a powder: it is practically without fibre and discolours quickly. If it were possible to eliminate this entirely

from all book work, a great advance would be accomplished.

Art paper, referred to elsewhere, will remain apparently until something is discovered to take its place. The alternatives, although superior in many ways, are almost too high in price to bring them within the sphere of practical commerce.

The table of sizes of papers given on p. 186 is as complete as it has been found possible to make it. The old-fashioned method of sizing books by the number of times the paper has been folded is useless under present conditions for practical purposes. In quod crown, this book would be 32mo., giving 64 pages to a section: as a matter of fact, it is best described as crown octavo. This question of sizes is a somewhat important one in bookbinding, and it is essential that the scale of sizes in inches or centimetres be clearly set out in any schedule of prices, with a statement as to whether the sizes are before or after cutting. To arrive at the size of any paper, when folded for book work, divide the larger measurement by 2. For instance, Q. Crown is 40×30 inches in the broadside; Folio is 30×20 ; Quarto is 20×15 ; Octavo is 15×10 ; and so on. These sizes are in the fold, and when cut the bound



SPARTO PULP, SHOWING LONG PAPER-MAKING FIBRES, TWO CHARACTER-
ISTIC CUTICULAR-HAIRS, AND THE SERRATED AND
OTHER CELLS OF THE EPIDERMIS.

(Magnified 325 diameters.)

CHAPTER III

LIBRARY AND REINFORCED BINDING AND THE WORK OF THE BOOK PRODUCTION COM- MITTEE OF THE LIBRARY ASSOCIATION

IT is difficult to foresee the ultimate result of the work of the Book Production Committee of the Library Association; in fact, it would be true to say that it is difficult to foresee what the Book Production Committee will become. It possesses great potentialities, but only the future will show whether or not those dormant powers have been given the opportunity of expanding; and if the opportunity is forthcoming, whether the success of its efforts will be sufficient to sustain them. There are two aspects from which the work of this Committee may be viewed; but before dealing with them it will be advisable to give a brief outline of the history of this Committee.

Some years ago, the first Committee of

this name was appointed by the Library Association, but, perhaps because the time was not a suitable one from the standpoint of the solidity of public libraries or from that of the conditions of book publishing, they were unable to effect any advance against the evils then commencing, but now advanced and augmented by others. It is unfortunate, because what might then have been but a cloud on the horizon, called up by a too enterprising publisher, has now become recognised as legitimate publishing—I refer, of course, to the aggravated use of inferior materials.

It was due largely, I believe, to a peripatetic exhibition of the materials of book production that started at the Gravesend Public Library and finished at Leyton, after visiting the libraries of Erith, Folkestone, and Woolwich, that a further effort was made to grapple with this problem by the appointment of a fresh Committee. The Committee was primarily one of the Library Association, and responsible to the Association in every way; but the peculiar nature of the work the Committee had to perform was realized and a comparatively large number of experts was co-opted. These members represented as far as possible the depart-

ments of book production as represented by materials : paper, printing, binding, etc., and to continue the work of the previous Sound Leather Committee it was merged in the larger Committee. This Committee, the Book Production Committee, was broken up into three sub-committees : (a) Paper, (b) Printing, (c) Book Sewing and Publishers' Covers, to go in detail into each class of materials : the union of the three sub-committees made the Book Production Committee. As the result of the work of this Committee, in the shape of a printed report, is expected during the present year, it would be invidious on my part to give any account of its deliberations as they stand at present ; and the remarks given here are only such as could be ascertained by any student sufficiently interested in the published reports of the Committee.

The two aspects of the work, to which reference has been made already, are the improvement in the material of books for libraries, and the improvement of the materials of books published in the ordinary way and sold retail to the general public.

It has been said that only the first of these concerns librarians, but this is not so. Many thousands of books are out of print and can only be obtained in a second-

hand condition. As these are frequently just the books most wanted, it follows that the bad paper is equally worthless to the library whether at the time of publication or ten years later. Public libraries, unlike the great private collections, are subject to heavy wear and the books constantly require replacement ; it is therefore meeting the difficulty only partly to make the first copy a sound one and all the succeeding copies shoddy articles. So far, however, as appears from the announcements of publishers and others, important advances have been made in the library side of the movement. Several publishers have put on the market specially bound editions of books. These special bindings take two forms: (1) Library Bindings, (2) Reinforced Bindings. Reinforced bindings consist of a certain amount of additional strength being imparted to the binding of the book, usually by way of extra tapes of greater length, linen end joints or linen linings, etc. They have been well reported upon in America, but they have not met with a large amount of favour here ; largely, no doubt, because this style does not meet the needs of the case. Unfortunately, too, only the cheapest books have been available in these rein-

forced styles, in which the increased cost has been as much as fifty per centum. At the best of times, libraries endeavour, wherever possible, to buy the better class book, but when sixpence is added to a shilling book the advantage of the reinforced binding in comparison with the price is somewhat problematical. Up to the present, few, if any, books published at anything from six shillings upwards have been available in reinforced bindings. Nevertheless, in these cases the cost of reinforcement would be about the same, but would be an increase of from 8⁰/₀ on the six shilling book, down to 5⁰/₀ on the ten shilling volume. It was stated at a session of the annual meeting of the Library Association in 1910 that even when ordered these books could be obtained only with great difficulty. The method of dealing with the trade *may* have accounted for this. It appears that this additional sixpence was, in the case of some publishers at least, added net to the trade price: that is, on a two shilling book charged at 2/6 the trade discount was allowed only on 2/-. While this is quite defensible, it is not an arrangement that would appeal to the provincial trade, and it was to that trade the most strenuous appeal should

have been made. Before this plan of issuing reinforced bindings can be described as a failure, it must be applied to a number of books of comparatively high price; and these books must receive the utmost publicity it is possible to give them. It should be a comparatively easy matter to dispose of an edition of 300 copies in reinforced or library bindings. It has been suggested that a central bureau should be established for the purpose of receiving orders for these books before publication; in this way minimizing the publisher's risk by limiting the number of copies. Such a scheme would be a highly speculative one from a business standpoint, nor does it offer anything more tangible in the direction of solving the library purchasing problem.

These reinforced bindings were in use for their two shilling net novels by Messrs. Nelson, but were discontinued shortly after. Messrs. Dent and Son applied the practice to their "Everyman" Library, which renders these books particularly suitable for replacements. Messrs. Hodder and Stoughton and Henry Froude Joint Committee have made elaborate arrangements for the issue of juvenile books in library bindings. Messrs. MacMillans,

Ltd., are also issuing library bindings. The *Encyclopædia Britannica* was also issued in a special library edition according to the specification of the Book Production Committee.

From these various examples it will be seen that the Book Production Committee has not laboured in vain, although the fruit cannot be described as quite ripe in the vineyard.

In the matter of library bindings, however, there is a great difference. Whatever may be the reinforcement of the reinforced binding, it still remains 'publishers' covers,' subject to the limitation of the life of a—usually—somewhat flimsy cloth and a straw board. The library binding, however, should be, when issued by the publisher, the same as the library binding supplied to the library, and at least as good as the same class of work done by the best of these special trade binders. In other words, it should be the work of these binders whether under the direction of the publisher or not. I may be suspected here of partisanship and prejudice; but a moment's reflection will show that this is not the case. The title of this book is 'The Business of Bookbinding,' and I will deal with the question from the business standpoint.

As this is perhaps the chief *raison d'être* of the book, I shall be justified in dealing at length with it, even though other aspects of the subject are dealt with in other chapters.

I will take the arithmetical side first. In some cases public libraries clear a whole edition of a book of, say, a thousand copies ; but the *average* number of copies is about three hundred absorbed by public libraries during the first three years after publication. This view is substantiated by the following figures, which, however, cannot make any claim to scientific exactitude.

The amount annually expended upon books by the public libraries of the country is, roughly, £200,000 ; this sum would purchase about 800,000 volumes. If we take 2,500 as the number of books suitable for public libraries, published during the year, we have an average of 320 copies of each book. As it might be thought my estimate errs on the side of liberality, I have deducted the twenty in calling it an average of three hundred. If we suppose, still for the purpose of bringing out the financial side of the subject, that a publisher issues during the year, one hundred of the 2,500 suitable books, we find that the number of copies is $300 \times 100 = 30,000$, which, at a

shilling a volume, represents a turnover of £1,500. The question a business man would put to himself under these conditions is, Would it pay him to lay down the necessary plant, to engage specially skilled workmen, to provide premises, etc., for a turnover of fifteen hundred pounds? There cannot be the slightest doubt for a moment that this question would receive a most emphatic answer in the negative. In addition, there is all the trouble and expense incidental to the maintaining of two stocks of everything; and I suppose only those who have had experience of at least some departments of publishing can appreciate how large the care of the stock looms.

The question of how many books it would be necessary for a publisher to handle before he could undertake his own 'library bindings' with success, financially, is a difficult one to answer, as so much depends on the ever varying quotient of local conditions. In general terms, one might venture to say that three times the number mentioned might offer some reasonable prospect of success. That number, however, is not likely to be reached for some few years by any publisher of ordinary books.

This plan is in use already, but it might

be predicted with a considerable amount of certainty that it will not succeed in satisfying those publishers who have adopted it. Even under the most favourable circumstances it is unlikely to do this; but under the present conditions, when the plan of supplying library bindings is in its infancy and will require some considerable sums of money to bring it, and the importance of supporting it, before every librarian, and when one book or series of books here and there is all that can be obtained, it is, as I have said, hopeless to regard this plan as likely to be commercially successful for some considerable time.

There are two methods in which the risk is reduced to a minimum and the possibility of success is increased immeasurably, while the vexatious drawbacks of a multiplicity of stocks are wholly absent. In both of these suggested plans the trade binder is the important factor. I believe they are both in use as a result of my initiative, and appear likely to be extended. With the object of pointing out how 'library bindings' may be effective and successful, I will describe the plans.

Of course it is very generally known that 'bindings from the sheets' have been available in some publishing houses for

many years. But this differs materially from the latest developments. Generally speaking, this plan of binding from the sheets has been regarded as the result of a more or less unofficial favour on the part of the publisher, and not as a recognised practice; some publishers refused and still refuse to supply books in sheets. The great drawback was that the total cost of binding appeared to be added to the full discount price of the book, the only advantages accruing to the purchaser being that of a somewhat increased life of the volume, not always commensurate with the increased price.

The first of the two proposed improved plans provides for the library binder performing the work for the publisher; the publisher retaining entire control of the stock, and selling through the ordinary trade channels. As occasion requires, the books are sent in batches of a hundred volumes, or whatever other number is provided for in the contract between the publisher and the binder, to the binder. Provided the volumes are all of the same size, the parcel may contain a hundred different books, or two copies each of fifty, or twenty-five copies of four, or, in fact, any combination of copies and books. The

binding, as a rule, can be done in this way to *sell* at a lower price than it costs the publisher to produce the bindings himself. And the work is better done. Perhaps the most important point, however, to be considered, is that the publisher is able to give a guarantee that the work is what has become known, during a number of years, as library binding. The librarian who purchases these specially bound books is in this way well aware of the binding he is, or is supposed to be purchasing. In the other plan, where the publisher is not able to give this guarantee, the librarian requires to assure himself that the binding is what he expects it to be: this entails the expenditure of a considerable amount of time and trouble, and occasionally some money. Needless to say, many librarians are unwilling to incur these various expenditures and remain content with the ordinary bindings offered them.

The term 'library binding' is capable, possibly, of some misconception, as it has been applied on occasions to bindings quite unsuitable for use in any library other than that of the private collector whose treasures are retained under lock and key, in much the same way that 'library edition' is applied to what would be better

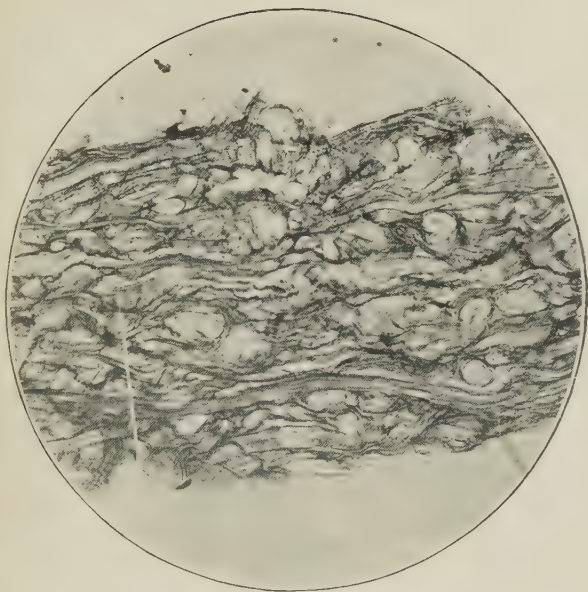
described as *éditions de luxe*. During the last few years library binding has become recognised as descriptive of a strong, serviceable binding, not ornate, but under the best circumstances pleasing to the eye; sewn, forwarded and finished according to a not very strictly defined specification, but resulting in something very much stronger than ordinary bindings—the bindings so largely in use already in public libraries; it is, in fact, from these bindings the new publishers' style takes its name.

The other plan I have advocated is one which, if the many interests involved can be placated, should prove highly successful. I have been able to get the proposal well received, in some cases already, and have no doubt, as its evident advantages become still better known, it will be still more widely followed. I do not overlook for a moment that there are many and great difficulties to be overcome before the system can be extended to embrace all classes of books, but if these difficulties are approached in a spirit of conciliation instead of antagonism there is no reason why they should not be satisfactorily overcome. I will outline some of the greater difficulties, but first I will explain the suggested scheme. Briefly, it provides for the binder to take over the

books in sheets—if need be, printed on better paper than the ordinary edition—and in turn to sell to the library booksellers or contractors, or to the libraries direct. The risks, so far as there are any, should be shared by the publisher and the binder. An early consultation would suffice to determine with considerable exactitude the number of specially bound copies likely to be required. Although this might not be the case with the first few books, there is no doubt it would be so later on. When once it is decided to print library copies on better quality paper, the question of fifty copies more or less to be ‘run off’ is not one of importance. Having decided upon the number of copies in sheets to be taken over, the binder would remove them to his own factory. In these early days of the proposition they should be returnable if unsold; and it must be a *sine qua non* that the publisher will refer all inquiries for these specially bound copies to the binder. Both binder and publisher will include the books in their catalogues. Except that the binder performs a large part of the work put into the book as sold, this arrangement is similar to that in use between makers and agents all over the country. The only surprise is to be found

in the principle not having been applied to these bindings in general, and library sales in particular, long ago. The binder will bind copies as ordered either by the libraries or the booksellers. The unsold sheets being returnable, are available for use in the ordinary stock bindings. The publisher's risk appears to be nil; with the advantage of a, possibly, increased sale and a slightly higher price if the quality of the paper is improved. The library binder's risk is not much greater, except to the extent of his expenditure on circularizing or advertising. This depends altogether upon the number of books he handles in this way, the cost of advising librarians regarding a small number being almost as great as for a large. Following the general practice in business—a practice shown to be advisable in other goods by the history of some centuries—only one library binder should be put into the position of wholesaler for library bound copies of individual books. Otherwise, unfair competition in quality and price would result. The whole idea of library bindings is to pay a proper price for a sound article, but to be assured when paying the price that the article is sound.

Price, it may be observed, is the root of



TRANSVERSE SECTION.

DIRECTION OF STRONGEST HAND-MADE PURE LINEN PAPER, 30 LBS. MEDIUM.

Magnified 325 diameters.

Showing freedom from air-spaces as compared with very thick paper of same make.

all the difficulties to be met with in the successful general application of what is easily demonstrated to be, otherwise, a satisfactory solution of many problems in the supply of books to public, and all other libraries of a semi-public nature, such as university, collegiate, and Government libraries.

Novels at the present time may be said to be the only class of books published at a price subject to a discount, and even many novels are now issued at net prices. If all books were net, the difficulty of pricing library bound books would be less. Do not let it be supposed for a moment, however, that *I* am suggesting an extension of the net system. This is not a suitable place in which to recount the arguments advanced on both sides of that question. Non-net books are sold to libraries at discounts varying, to some extent at least, according to the amount of the orders for net books. This discount ranges from 25% to 50%; obviously the library binder, who should take up the position of publisher's agent, would be brought into the very unsatisfactory position of competitor, on unsafe grounds, with the booksellers. If the orders are executed through booksellers, the difficulty is diminished, but

even under the best of circumstances the price of the book is subject to a discount, while the price of the binding is not. And a fair percentage cannot be arrived at because all books of the same price do not cost the same to bind, because they are not all of the same size, or thickness; nor is the paper always of the same quality. On the other hand, some allowance must be made on account of the books being supplied 'in sheets.' It is contrary to the trade practice, even if it is not contrary to the interests of the trade, to reveal 'costs' to the purchaser; in other words, it would not be politic on the part of the publishers, binders, or booksellers, to announce the price of the books in sheets with the amounts of the charges for binding, showing, together with the profits of the various trades through which the books have to pass before delivery. This is the greatest problem that must be solved before library bindings can be developed and extended as they should be. From the unprejudiced business point of view, in which full allowance is made for the perfect freedom of contract, without inflicting any hardship upon either of the parties engaged in the work, the solution of the problem appears to be with the publishers, who should agree to some fixed

price—net of course—for library bound books, which would be based upon the discount price. In other words, to take a concrete example, if a novel at 6/- is sold to the ordinary trade at 3/10, that should be the price to the binder, minus wholesale discounts if he can take large numbers, also minus an allowance for taking sheets. These last two should be additional profits to the binder's credit, due to him as interest, etc. on his larger outlay and risk. At 3/10, he stands in the position of the local trader, plus the cost of binding: the preference for this binding over ordinary publishers' covers lying with the librarian or other purchaser. There is then no advantage to the library in purchasing direct, because both the binder and the local bookseller start on these premises, viz. at 3/10, and *ipso facto* the local bookseller has nothing against him because he has the book at the trade price of 3/10, plus the cost of binding, less the trade discount. Of course I am aware that the binder, if he desired, could 'cut' the price on the items of profit shown, but it must be remembered that when this method of sale and publishing becomes general, the distributing agents, unless a radical alteration takes place in all methods of

publishing, will be the local or retail booksellers. To antagonise them would be suicidal on the part of those library binders who endeavoured to push forward this system I have advocated.

I am well aware that the profits or prices must be very differently dealt with where the library binder is, as it were, co-publisher, and he must accept those risks that are inherent with whatever arrangement he may make with the publisher.

Library binding, as I have already explained, is simply a term to denote books bound in a style recognised as that generally adopted by the public libraries of this country, and America, etc.

As a matter of fact I could enumerate at least twenty-four different styles of library bindings. Various methods of strengthening these bindings have been resorted to, including the insertion of thin triangular pieces of brass or other metal in the corners. The drawback to these methods—to many of them at least—is that the additional weight more than counterbalances the increased wear-resisting qualities; and where some time ago every alteration in these bindings—I will not say improvement—was in the direction of turning out a fire and damp-resisting im-

pregnable shell with a book inside, the feeling is now more rational—the binding being adapted to the requirements of each particular book. This is still impossible where a single specification is enforced for the re-binding of all books.

I have referred at length to the first of the two aspects of the work of the Book Production Committee, mentioned in the early part of this chapter; but the second aspect is one of equal if not greater importance to the country at large: and as the ordinary book-purchaser and collector is either careless or ignorant of the way in which his interests are sacrificed, it will be as well to refer to it here. Let me explain, however, that I am giving my own views here, for which I accept full responsibility.

There are still many men and women who appreciate good literature and beautiful books, and pay and are willing to pay anything from 10/- upwards for each of the volumes they possess. It would perhaps surprise many of these collectors to learn that some eighty per cent. of the books they are buying will be as so much waste paper or block chalk within a few years, so far as paper is concerned; and as rags and tatters in respect to the binding.

I have referred to this in 'The Trend of Modern Binding'; but there is still much to be said for the substitution here of a sound binding worthy of the contents of the book, and commensurate with the price paid. It is a fact that in many cases the binding of a book has broken before it leaves the publishers' hands: in other words, the book has never been 'bound.'

CHAPTER IV

MATERIALS AND COSTS

IN binding, as in every other business, the cost of materials is one of the most important items to be considered. Cost is sometimes considered without regard to materials; and largely through this the quality of the materials used in the making of publishers' covers has steadily deteriorated. But I have dealt with this in the chapter on 'The Trend of Modern Binding,' and elsewhere, and it is not necessary to do more here than just refer to it as a necessary factor in looking at the subject in its wider acceptance. This question of materials and cost, whether regarded as one or as two subjects, has two distinct aspects: one, from the point of view of the librarian, or other individual, as a purchaser or customer of the binder; and two, the binder himself as a customer, or purchaser of the materials he uses. In this capacity of purchaser, both the librarian and the binder take part,

as a rule, in the inevitable cheapening process, while each blames the other. Library authorities, by their system of tenders and contracts, have contributed largely to the facilities for using inferior materials because it is easily possible, as a rule, to fulfil all the conditions of a contract, whether for bookbinding or for anything else, and yet not produce a satisfactory result. Of course, I do not suggest that all specifications, tenders, and contracts have an unsatisfactory result: this would be far from correct. But these conditions of modern work have materially contributed towards such a result from the standpoint of the librarian as customer. The natural tendency when quoting on a specification is to calculate for materials and workmanship that will satisfy the conditions of the specification and nothing more. Each binder suspects the other of doing this, and so feels obliged to do the same thing himself.

This is the effect the librarian as a customer has on the binder under modern conditions.

To fulfil the conditions of his tender, the binder is obliged to resort to the same methods with the manufacturer; except that, instead of issuing a typed or printed

specification, and obtaining the lowest price possible against these requirements, he uses his knowledge of the trade to go to the cheapest market, and may possibly 'work' one wholesaler against another.

It was necessary to explain the sequence of events in this connection—events that may take place almost unconsciously on the part of the librarian and the binder, because the comparison of prices, as I shall give them in the following pages, may not coincide with the knowledge or convictions of the reader. A cheap quality pigskin may be lower in price than a high-class sheep, and all goatskins are not so high in price as moroccos. Again, when speaking of cloth for binders, one is apt to forget, or to ignore the fact that bookbinders' cloth ranges in price from two or three pence to four shillings a yard. Then again, materials are dearer in the United States, Canada, some parts of the continent and other foreign countries and colonies. So it must be remembered that when it is stated that leather is dearer than cloth as a binding material a standard commercial quality is intended.

The object of this chapter is to indicate as far as is possible under the circumstances how and in what material books and

pamphlets should be bound. And 'binding' here includes the mounting or wrapping of prints, broadsides, etc.

Prints and broadsides are somewhat difficult to treat. The most common method is to paste the prints, etc., on to sheets of art paper of an approved shade, the sheets being cut to a number of standard sizes, and filed in drawers or pamphlet cases. The great drawback to this method is that the print is damaged to some extent by the rubbing of the mount above it, while the pasting down prevents all examination of the watermark or the make of the paper—in some cases a serious matter. These disadvantages have been overcome, to a slight extent, by fixing the print or broadside by a hinged mount, in the same way that postage stamps are mounted in an album; and by using sunk mounts. When this is done, the hinge should be carried the full length of the print. The sunk mount, somewhat similar in idea to an ordinary picture mount, is not deep enough—and cannot be used deep enough on account of the pressure—to prevent this rubbing taking place, at least, on the centre of the print. Of course, where the 'print' is in reality nothing more than a contemporary scrap always obtainable, this

is of no moment. But where the value of a print ranges from five shillings to more than that number of pounds, it is of considerable importance.

Folders obviate the difficulty, but even in these, unless the surface of the paper is very fine, the delicacy of an early nineteenth-century coloured print may be damaged by the impression of the texture of the paper of the folder being impressed upon it by the pressure of numbers. For sheets with fly leaves, such as autograph letters, a tape may be run through the centre. The folder may have spaces provided on the outside for a description of the print or other document contained in it.

It is essential in the care of valuable prints, etc., that they should be handled as seldom and as gently as possible.

A cheap and satisfactory method of treating paper-covered books, or books in original bindings that are not required to be re-bound, is to put them into cardboard cases with the backs showing. With a little practice these cases can be made at home.

Pamphlets are best treated as separate items. They can be wrapped in thin marbled board—not much stouter than thick paper—at a cost of from a penny

upwards, according to size, and kept together loose in pamphlet cases.

We come now to books themselves. And here everything regarding the choice of style and materials must be left to the knowledge or intention of the owner or librarian. The variations and combinations of style and materials that can be made are unlimited, and only a small number can be dealt with here. 'Pluvisine,' 'Rexine,' 'Pegamoid,' and American cloth are amongst the cheapest materials, and for that reason are to be recommended for those books now being issued in large numbers printed on thick pulp scarcely deserving the name of paper: light weight half stuff, would be a better description of the material. Of course 'leather-cloths,' as these are sometimes termed, can be obtained in higher grades and at consequently higher prices. These may be used for full bindings in one quality and colour; or may be treated as half bindings, a stronger quality being used for the back and corners and a lighter weight for the sides. This is usually done in account book work, but a good effect can be obtained for the books of the poorest quality in the lending library by the use of a cheap style of one of these imitation leathers.

We next come to cloth bindings. The manufacture of cloth and the standard of quality are dealt with in a separate chapter, and it is not necessary for me to go into the matter here. I may proceed at once to the considerations governing the use of cloth as a binding material. It may be said that for all practical purposes there is no competition between cloth and leather for bindings : each has its own particular sphere and its strict limitations of usefulness. It is only on special occasions and for library bindings that leather is used for publishers' covers. One would not have it otherwise. Of the millions of volumes issued annually, how many of them are in existence at the end of twelve months ? Where books go to is an interesting subject for inquiry. I suppose there is not enough leather obtainable to cover the whole of these books, and if there were it would be an appalling waste to use it for such a purpose. On the other hand, one of the chief objects of this book would be unattained if I neglected at every opportunity to urge that if these books are worth publishing at all, they are worthy respectable covers and reliable workmanship. It is then as a publishers' material that cloth has the widest field, but even in the library

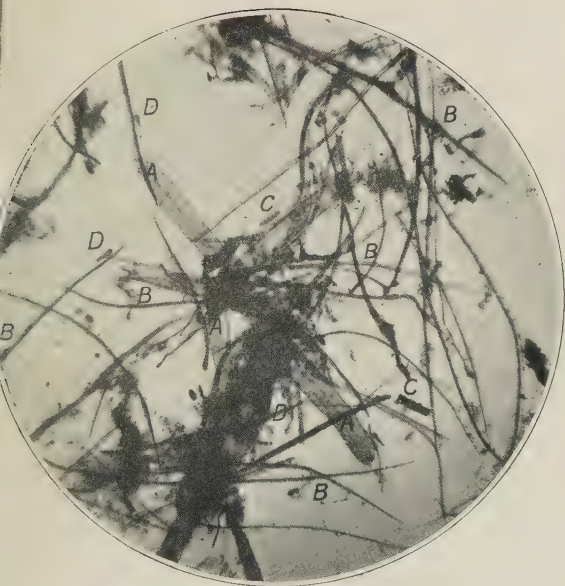
its use is extending for all classes of work. In publishers' covers, however, there are many grades, and probably always will be; but the complaint, justly made, is that too many of these grades are low ones. The better class, or the higher-priced work, does not always receive the attention it deserves. It is scarcely conceivable that for the sake of one farthing a volume, on a book ranging in price from half a guinea to a guinea or more, a cloth binding should be sacrificed; and yet as this is at times all the difference between a satisfactory and an unsatisfactory material, ignorance appears to be the only excuse, if excuse it is. As I conceive it, a publisher has a moral obligation to give his customer value for money received; and all too frequently he does not do so. Of course it must be realized that in this event all books do not sell to the same extent, and that value for half a guinea in one case may not be the same thing in another: value is not a fixed quantity for the purchaser, but an adequate return for services rendered, whether those services are authors', publishers', printers', binders' or booksellers'. There should be, however, a fixed and irreducible minimum standard quality in every publisher's mind; and price should be subordinate to it.

Most frequently, however, price bears no relationship to quality, and as described in the chapter 'The Trend of Modern Binding,' the quality has been steadily decreasing or receding from an imaginary standard.

Paper is the key to the quality of all the other materials in the manufacture of a book, and when I say that the cloth should be chosen in accordance with the quality of the paper, it must be understood that the paper should be of a satisfactory quality. The weight and the strength, in both directions, of the paper used should determine the cloth and the boards, the thread and glue, and the style. It is rather generally believed that the binding of a book both supports and protects the paper. Heretical as it may sound, I do not agree with this. If it were so, then it would follow that the stronger the binding and the heavier the materials, the better it would be for the paper. As a matter of fact, a heavy binding throws an enormous strain on the paper; a binding is no more than the clothing of the book; and to carry the analogy further, clothing serves only such purposes as decency and warmth, and its support is no more than moral. The significance of this is to be found in

the paper-covered book, which comparatively has a much longer life than the heavily-bound book with a low grade paper. Having due regard to the quality of the paper, the publisher selects the cloth of the best quality in a suitable grade, and, the United States Government specification notwithstanding, it should be of a fast colour.

In a library, cloth has two distinct lines. It may be used with advantage for books of light weight, with little wear, and yet are likely to remain in use for many years; and for books likely to be in constant use for a short time, and printed on low grade papers, of a somewhat higher quality than that of those books which I have suggested should be bound in one or other of the imitation materials. It may also be used for books which are likely to have only a temporary life on account of their partly dirtied condition, or for any other reason. Cloth for bookbinding purposes is obtainable in numerous qualities and styles, from the thinnest faced cloth to buckram, art linen and morocco cloth. For library work, the last three only are permissible. Buckram was much in vogue until about ten years ago. At the present time, the age of art linen is approaching; the Imperial



- A. Chemical wood fibres.
- B. Esparto fibres proper.
- C. Serrated cells of Esparto.
- D. Esparto Cuticular-hairs.
- E. Regions containing size, coating material, and broken fibres.

cloth is still enjoying its day of popularity. Curiously enough, art linen, as the latest bookbinding cloth development is termed, is a violent contravention of many of the traditions of cloth manufacture, but that is the case with many of the new things of the present. The cloth which one would admit for use in the re-binding of library books ranges from ninepence per yard to one shilling and fourpence.

We come now to leather for binding purposes, and here again the reader is referred to another chapter for the details of manufacture, etc. To commence with, there are quarter binding, half binding, three-quarter, whole binding, and yet another style in which the back is leather and a narrow border is carried round the edge of both boards. This last looks exceedingly handsome when well done, but has not yet much of a vogue. Quarter binding describes a narrow leather back, half binding the addition of corners in leather, three-quarter binding is applied to a wider leather back and corners. Each of these styles is applicable to all other styles and leather materials, in this way multiplying them all. The costs of these are progressive upwards from the quarter binding, with the leather border style coming

between the three-quarter binding and the whole leather binding. Split sheepskin is undoubtedly the cheapest leather binding, but it is seldom used in library work, as it has neither strength nor lasting qualities. Sheepskin, unsplit, acid-free, makes a satisfactory leather for books where some strength is required but no permanence. Sheepskin is here referred to as sheepskin and not as one or other of the many leathers this skin becomes in the various methods of treatment. 'Persian' may be described as next in the ascending scale, but it must be remembered that all Persian leathers are tanned with acid, and although the acid may be washed out and the skin re-tanned with sumach, the fact remains that it has been acid-tanned. Following on, we have oasis goat, which is at least as cheap as Persian and yet has none of the drawbacks inseparable from this leather, which has a tendency to dry rather quickly. 'Oasis goat' occupies a position somewhat between a cloth binding and pigskin: that is, it is suitable for books of a medium weight, say up to 2 lbs., receiving fairly steady wear. Pigskin or hogskin, the best of which is reputed to come from Scotland, is an eminently satisfactory leather for heavy books with a constant or rough usage. We come now

to those two fine leathers which are the delight of every book-lover : sealskin and morocco. I suppose everyone, certainly all librarians, would use these two and these two only for all leather work if that were economically possible ; unfortunately in most libraries their use is restricted to the reference library stock and to the best books of the lending library : private and semi-private collections, of course, fall into the category of reference libraries. The beauty of the leathers, their richness and their wealth of possibility in colouring—both seal and morocco—are unmatched in any other leather. Here, however, there are grades—‘oasis’ is, as a matter of fact, one of the moroccos—varying considerably in quality and richness, varying too in price.

Even in these leathers, the highest class leathers, there are classes and grades. Niger morocco is perhaps as good a leather for high-class work as any, although it is not certain that it is the best leather for rough and everyday usage. I make this qualification because, from tests that have been made, Niger morocco is said to withstand the greatest tensile strength. The futility of the ‘tearing strain’ test is dealt with in the chapter on cloth-making.

From the foregoing it will be seen at once

that it is not an easy task to sort a number of books into their respective departments for re-binding. Under ordinary circumstances it is not advisable to have more than a dozen or fifteen styles in use; and in proprietary, state and other libraries, where a more rigid rejection of badly-produced books may be enforced, half a dozen different styles and materials will be found sufficient. As I have already stated in deciding upon the style to be adopted, there are only two factors to be taken into consideration, the paper and its condition, and the use to which the book will be put. It will be noticed that I have not referred to the many other leathers used commercially, such as Russias; but these will be found in the glossary at the end of the volume, and they are not in general use beyond a somewhat extensive application to prayer book and similar bindings.

So much for the outer covering. We come now to the question of tight or hollow back. Which shall it be? These two methods multiply all the preceding styles and materials and their combinations by two. It is not so very long ago that the tight back was regarded as essential in any binding that laid claim to efficiency. Now,

however, the loose or hollow back is recognised as possessing some advantages. For my own part, I think it is in many ways superior to the tight back for much of the paper used at the present time. And with the French joint there is very little doubt that the strain on the paper is reduced to a minimum. It is essential that the back should be properly built up and finished off.

Many of the ideas of a good binding have undergone great changes during recent years. Some of them have been referred to already; another is in the rejection of the orthodoxy of the 'split' board. This consisted of a thick and a thin board glued together with the tapes between: the single board with laced strings or tapes is now coming into its own again. There is practically only a slight difference between the cost of these.

The remaining materials are the tapes, thread and glue.

Elastic glue, made chiefly with the addition of glycerine, has received the welcome accorded to most new materials which hit the popular fancy. But it has yet to 'prove' itself. All glue is more or less elastic; and when this is made from the best skin glue materials, it is doubtful if it can be improved by the addition of

foreign ingredients. At all events, all so-called elastic glues are not elastic, but give off many disquieting cracks when a book is opened. There is something of a war going on, linen *versus* cotton threads; and so much depends upon qualities, that it is doubtful if anything really decisive can be said upon the matter. Somewhat the same may be said regarding tapes, but in addition there is the long vexed question of strings *versus* tapes to be taken into consideration. Personally, I prefer loose or hollow backs, single boards with laced strings, and linen thread. Vellum bindings fall within the class of fine bindings. Wooden boards, common enough in the earliest history of bookbinding, are now seldom met with except in magazine covers; while velvet and worked-material covers scarcely fall within the purview of the business of bookbinding.

CHAPTER V

BINDING FROM THE SHEETS *v.* PUBLISHERS' COVERS

IT is necessary perhaps to explain that 'binding from the sheets' is not quite the same as 'library bindings.' If there were no other difference there is the difference between wholesale and retail : between one copy here and there when ordered, and a large number ; between a business arrangement with the publisher, and something of a favour possibly from the publisher's binder. Expressed in money this difference may amount to as much as ninepence or a shilling : a very large difference that may, and in fact almost certainly will, make all the difference between success and failure. I do not think there is any room for doubt that ultimately library bindings will enjoy a large measure of success ; while, I suppose, it is equally obvious that binding from the sheets is

being less used year by year. It may be that this is due to the steady deterioration taking place in the quality of paper, but much of it is unquestionably the result of the excessive cost of this method. By cost I do not mean to designate first charges, i.e. price, but the monetary result of the whole system. But when everything has been said that might be said, the matter is brought back again to that which ultimately rules every business transaction—cost and return for the outlay. And here I may say that I have not altered my opinion on this subject, in its broad outlines at least, since I dealt with it in a paper read before the Library Assistants' Association in March, 1904.

One of the most important factors governing the consideration of this question is undoubtedly the class of borrowers using any particular library. I suppose the worst combination in this respect is a district containing large numbers of the middle classes with a goodly proportion of the labouring class—not to be confounded with the artizans. On the one hand, the middle class borrower objects, justly I think, to the use of books begrimed with the dirt of many dirty users; while the dirtier borrowers, to whom a book has no beauty, are

steadily, regularly and continually turning clean books into dirty ones with the rapidity of a huge machine. I am not discussing whether the 'lower classes' read or not, or whether they read as much as others or not; I simply confine myself to pointing out that one dirty borrower can impress his 'mark' indelibly on fifteen thousand pages during the course of a year, without exceeding the average. Obviously, if there are many such borrowers, good bindings, expensive bindings, bindings from the sheets are ultimately much more costly here than they would be in a good class neighbourhood where, even though the regard for books may not be higher, there are fewer dirty hands. Dirt, as I have already said, is perhaps the greatest obstacle in the way of the adoption of good bindings in public libraries and causes the withdrawal of many more books than legitimate wear and tear. Under these circumstances, the economics of 'binding from the sheets' have to be scrutinised with great care and minuteness.

A glance at the comparative costs of 'binding from the sheets' and the ordinary method of publishers' covers and re-binding, will prove instructive. We will suppose that the life of the paper of the book is a hundred issues. It may be, and

frequently is, less, because the quality of the paper used is continually dropping to lower and still lower standards; and contrary to the case ten or fifteen years ago, it is no longer the binding but is now the paper that is the dominant factor in the life of the book. We will accept, then, a hundred issues. The cost of the book bound from the sheets, if a six shilling novel, is probably $5/9$, or $0.69d.$ per issue. Not an excessive amount if the number of issues were the average. The cost of the book in publishers' covers is from $3/9$ to $4/-$ according to the discount allowed by the bookseller. For the purpose of this demonstration we will take the higher figure, viz. $4/-$. The original covers will last for a certain number of issues. Although not a large number, this is usually sufficiently large to make it possible, if not advisable, to use a cheaper style of binding than that usually associated with 'binding from the sheets.' If we take the same class of binding at about $1/4$, we have a total of $5/4$, or $0.64d.$ per issue. As a matter of fact, however, these prices would be in most cases $3/10$ for the book and $1/-$ for binding, making a total of $0.58d.$ per issue. In the case of a large number of books, this amount is of appreciable consideration.

Where the book can be bought as a surplus library copy, or a review copy, the amounts would be approximately $2/6 + 1/- = 3/6$, or 0.42d. per issue. Let me repeat, however, for the purpose of making my statement quite clear, that this does not refer to the books of twenty and more years ago when, as a rule, the paper of better quality did not so readily act as a dirt gatherer.

Binding from the sheets for novels has so far been relegated to a back seat that several binders are making a speciality of selling re-bound Surplus Library Copies.

The theoretical advantage of binding from the sheets is to be looked for in the reduction in the number of times the fold of the sheets is pierced by the needles, and in the fact that the book is only backed and pressed once. This pressing, however, in the case of the commoner qualities of paper is somewhat of an advantage, as it compresses the material into a substance more nearly representing paper as it should be; while cutting the edges at the time of re-binding gives the book quite a new appearance and a fresh lease of life.

CHAPTER VI

MACHINE BOOKBINDING *v.* HAND WORK

AN interesting experience of the Book Production Committee of the Library Association occurred while I was Honorary Secretary. Without exception, every member was opposed to machine work in sewing. But with the fairness and thoroughness that distinguished all the members of that Committee, it was decided to examine machine binding in all its departments and all its processes. This was done, with the result that it was unanimously decided that, if anything, the advantages lay with certain machine processes for commercial work.

It cannot be too strongly emphasized, however, that machine work is to be preferred only when well done. A consistently bad hand worker cannot long remain at the work; and a good hand worker sometimes makes bad slips; but a badly-tended

machine will do bad work all the time ; on the other hand, a true-running machine will do good work all the time.

I will omit that high-class work which is described as fine-binding, in which there is no work of the machine and in which there is much of the work of the artist, and little if any of the labour of the workman : those books in fact, the cost of the binding of which must be counted in pounds sterling to the shillings of the cost of the commercial bindings. The best way in which a comparison of the two methods—the two great schools—is by taking each stage of the building of the binding of a book, and comparing the work of the human hands and the machine.

Even in the preliminary stage of folding there is room for difference in treatment. Hand folding here, however, is generally used for the smaller sheets of good paper, or art paper, that have been printed flat. But no one who has seen the machine folder at work would suggest that it is not capable of neat, exact, and expeditious work. There is then the machine gatherer, only used with economy for long runs of the same sections, but infallible in its work. Hand gathering and the subsequent check by collating can add nothing to the after

result of the bookbinding. In fact, it appears probable that the introduction of machine work for all these small but necessary operations has reduced the margin for error to a point almost vanishing, as duplicate or omitted sections are faults now seldom found in new books. The process of collating new books as they come from the booksellers has been discontinued in many large libraries and other houses where books are purchased in considerable numbers.

The next important stage in the binding of the book is the sewing; and it is in this process that the so-called superiority of hand work is to be found, if anywhere. In those old days when time and care and attention were given to the sewing of each individual volume irrespective of the cost of binding, hand sewing may have been able to show points much more favourable than those to be found in present-day machine work. But if we recognise the conditions as they are at the present time, we realize that the hand sewing must be done at express speed, without regard to the quality of the work. The exact centre of the fold, or bolt, of the paper is not always chosen for the insertion of the needle, with the result that when the book

is opened the thread tears from the side to the centre. Knots are not always effectually tied, and the unseen part of the work is almost certain to be more bulky and clumsy than the work of the machine.

Now as to the work of the machine. We find an analogy in the sewing-machine of domestic use. I suppose no one would suggest that the lock-stitch sewing-machine has injured tailoring or dressmaking, although hand embroidery is still admired. In fact, except in the highest class work of the finest kind, it is doubtful if the hand-made dresses and coats of our grandmothers and grandfathers could compare with the machine-sewn garments of to-day in fineness or finish. It is the same in book sewing. The defects that are sometimes found are usually the result of careless working. The length of the tape can be regulated at will, and the ridiculously short-length tapes that are sometimes—unfortunately, frequently—expected to support the book in its covers are no more due to the machine than is a broken thread.

Even wire stitching has shown itself under certain conditions as reliable and satisfactory; but those conditions cannot be always relied upon to be present, and for the class of work I am considering wire

stitching is not to be regarded as a competing method, any more than the stabbing machine is to be regarded as a legitimate tool of the bookbinder's craft. There are many kinds of bookbinders' sewing-machines by various makers. But I do not propose to comment on, or pillory, any by name. In general it may be said that those machines are best which do least damage to the paper at the fold. The advantages of the machine sewing are, in the main, exact sewing in the centre, smaller bulk, even stitches, and the impossibility—on the lock-stitch principle—of a broken thread running throughout the whole book. These, of course, are in addition to the wonderful speed it is possible to obtain.

• The process of glueing does not call for much remark, except to state that elastic glue has yet to prove all the many fulsome claims that have been made on its behalf.

Rounding and backing, however, are open to some controversy. In both machine and hand work this is a murderous process for the present-day paper. When the machine is properly regulated, the damage is probably less than it would be in the case of beating with the hand hammer, the violent concussion tending more to 'break' the paper than the rolling pressure

Unhairing



THE FIRST STEP IN THE PRODUCTION OF LEATHER IS TO REMOVE THE HAIR.

of the machine. But it is in this process that the careless or ignorant workman can do most damage. And probably the abnormal number of loose leaves to be found after a comparatively slight use of the majority of books is due more to this than to any other cause.

We have now reached the stage of casing or forwarding : the one term being applied to the work by hand and the other to that by machine. But both terms have become somewhat confused, as forwarding in the case of hand work is largely done by separate machines, while the machine-made case more nearly approaches to the 'building up' of the cover of hand work. Under these circumstances it is difficult if not impossible to compare the relative advantages of both processes. We will, however, take ordinary 'casing' first. This is the method employed in most publishers' covers where the 'mull' or coarse webbing, the tapes and the end papers are glued to the outer boards.

All machinery is marvellous, even though it may be accepted as a matter of course, but as this is not a textbook of machinery, it is not necessary to describe casing machines in detail. As a rule, anyone with a legitimate interest in the subject will have no difficulty in obtaining permission to

view the machines in any large bindery, gaining in this way a much clearer knowledge of their working. The boards are cut by one machine, glued and placed in position by another, with the turned-over portion of the cloth pressed down without the touch of a hand. The blocking and gilding are also the result of machine work, and in the end the cases are made, ready to be pasted or glued down. Taking each operation separately, it is impossible to see any way in which it can be inferior to the hand-made case. In fact, it is evident that the machine-made case has points in its favour. It is because it *is* a case and not a built-up cover that it should be objected to.

To overcome the practical objections to casing, although without doing anything to mitigate the æsthetic, a simple device has been adopted in some instances; it is so simple and increases the cost so slightly that it is well worth further consideration by publishers with a view to its more general adoption. The plan is to paste, or glue, a very thin board on the inside boards, both back and front, with the mull and tape between; the end paper, of course, being pasted down on top of that. There are several ways in which this might

be done at various stages of the book's forwarding. But as it appears to be the nearest approach to the 'lacing' of the old monastic bindings, and the commercial equivalent of the 'split boards,' there is everything to be said in its favour. Several other devices may be used with the object in view of preventing the book 'breaking away' from the cover after slight use. But side by side with any improvement in either of the materials of the average publisher's cover there should be a general improvement all round. An improvement of the boards, such as that described above, adds to the weight: this throws a greater strain on the cloth of the cover; and an improvement in the weight of the cover will in turn still further increase the strain on the sewing.

The 'building-up' of the cover round the book is described in the chapter descriptive of the Business Bindery. And in this direction it is perhaps only necessary to say that library bindings, as they have been termed, offer a solution of all the difficulties—more particularly when publishers realize that there is no reason why library bindings should be less ornamental than the ordinary 'cases.'

'Finishing,' as the process of lettering

and tooling is termed, is the final operation in the built-up case, but, as has been shown, it occurs at a much earlier stage in the made case.

I think enough has been said in this chapter to show that, apart from the objection to casing *qua* casing, machine work is preferable to hand work in the commercial side of bookbinding.

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CHAPTER VII

ADVICE TO THE BINDER

BINDING and re-binding occupy a good deal of the attention of library authorities and librarians. Books and binding together are more nearly 'capital expenditure' than 'revenue.' And the best bindings for the various purposes, at the lowest cost, with the maintenance of the necessary standard, should be the object of those responsible for placing the library bookbinding order. Unfortunately, in many cases the 'local' aspect has been permitted to obscure the real importance of the matter, with the result that efficiency has been sacrificed. It is undeniable, too, that not all the local binders do the work locally; with the result that the local man draws a certain profit, or commission, from the other rate-payers without giving anything in return. Of course, the position represented by the hypothesis that 'if the work is as well done,

and the price is as low as outside, it should be given to a local tradesman,' is unassailable. But the practice of sending binding from the bookseller-stationers, who receive it either in batches or in single volumes from occasional customers, to London and the larger towns, is growing. And the intervention of a third party between the library and the binder, in the nature of an agent, is to be deprecated; because the *raison d'être* of an agent, that he shall supply the knowledge lacking on the part of his client, is here wanting; and the arrangement is the cause of bad feeling, and worse work. The librarian has to trust to the interpretation of his instructions by the local tradesman, who frequently will not forward the library order to *his* binder in case the larger man should learn something that would enable him to tender direct. The possible evil is still more extensive. It is not always the case that the larger man, to whom the local contractor sends, performs the work. He in turn sometimes mixes his orders and divides the books from his various customers, sending one class of work here, another there. This furnishes yet another opportunity for errors to creep in. But these successive contractors require each his

discount, or commission, and carriage on his parcels. *Every charge of this nature is a direct deduction from the quality of the work* ; because, in general, the cost of the binding is the index to the quality of the work so far as each binder is concerned, and any and every reduction in price must be accompanied by a corresponding reduction in the quality of the materials or the workmanship.

The chief point, however, is that so few binders are able to undertake with any great success the work of library binding. There is no other class of binding subjected to so great a strain and to such sustained wear and tear. During the passage of years, various improvements have been introduced in the sewing, forwarding and finishing, some of them patented or registered, but all the result of years of experience and patient experiment. As a result, the work is now highly specialized, not only in the few firms, but also in the works of these firms. All claim to adapt the binding to the quality of the paper—where there is no close specification—although some do it more minutely than others. All have special sewings, although they are not all the same : this style having one object and that another ; all have

some special feature of cover, though they do not all stand by the same feature. These are largely details: the essence of the work is found in the craftsmanship. A severe, even brutal, test to which these library bindings have been subjected, unfairly perhaps, but with complete success, is to open the book about the centre, bend the two halves back until the covers touch, and then beat the joint with the hand or a piece of wood. Of course the paper *may* 'give'—the poorer qualities certainly will—but the sewing should 'hold,' and if the paper is of good quality, it too will sustain the strain.

In dealing with this matter of the local binder, he must be prepared to submit his work to tests equal to those imposed on the ordinary library binders; and he must realize that it is no question of local work for local men, or of preferential treatment that influences the placing of the contract, but the maintenance of a high standard of durability and permanence in both work and materials. I do not wish to appear to labour the point, but I am well aware of the ignorance that exists amongst binders regarding the nature of the books to be bound, and the class of binding required in public library work.

Circulating library binding is sometimes compared with that required for public libraries, but only by those who are not conversant with the two institutions. The books in circulating libraries are, many of them, sold before they require binding; still further copies are sold after binding, but while they still look fresh; when the demand has ceased the book may be stocked, but even if so, there is no wear on it and it lies on the shelf. The books in public libraries, however, are selected on different lines: they are catalogued, and being in use for the most part, constantly require re-binding for permanent use; they cannot be sold and with few exceptions must be replaced, at all events for as long as they appear in the library catalogue.

The local bookbinder who secures the local library binding without being able to perform the work efficiently, taxes himself as a ratepayer, by his action as a tradesman, to the extent of the increase in the cost of the maintenance of the library stock.

CHAPTER VIII

BINDING SPECIFICATIONS, TENDERS AND CONTRACTS—THE LOCAL BINDER

THE opinion I expressed with regard to catalogue printing in 'The Production of the Printed Catalogue' does not apply to the same extent to bookbinding; and it is extremely doubtful if there is any advantage to be derived from the use of a specification. For my own part I do not think there is. And some of the so-called specifications to which binders are supposed to work are distinctly amusing. It must be remembered that quality and workmanship are not capable of definition and appraisement by the non-expert. In other trades it is common to express quality by So-and-so's make of goods; and if it were possible to compile a specification providing for the use of one firm's leather, another's make of cloth, a third's thread, another's tape, a fifth's glue, a sixth's paste, a seventh's lining, and so on, something might be done in the way of a

reliable and comprehensive specification; but even here it would be necessary to specify in each case the quality to be employed: as So-and-so's No. 1 glue, or No. 2 as the case might be. Best glue may mean the best to be obtained in the country, and that would be impossible to discover, even at the cost of innumerable lawsuits; or it might mean the best supplied by the wholesale house with which that particular binder happened to deal; and this 'best' might be but an inferior quality. And after all, very few specifications even mention glue; although the use of a poor glue may spoil the best workmanship. Something the same, but much more of it, might be said with regard to 'best workmanship': what is it, but the standard of the particular shop? Every librarian who includes this in his specification knows that he will not get the best workmanship at ninepence or a shilling a volume, if by 'best' workmanship he means the individual attention of the art craftsman who would point to the book with pride as a piece of his own creation, a part of his own mind. The truth is that 'the best workmanship' is a commercial phrase, almost meaningless, but inserted because it looks well.

Again, it is impossible to include in a specification provision for all the eventualities that might occur in a book sent to the binders. So that, ultimately, the work is left largely to the discretion of the binder. The specification that is looked to cover all the ground, and to provide for all possibilities, is undoubtedly to the disadvantage of the library, because in the first place it may rule out some firms that would otherwise compete, while those entering may be obliged to put up the price to cover their risk. Where, as I believe is most frequently the case, the specification is but a farce and the binder tenders on what he *knows* the librarian wants, I think the result is eminently satisfactory, serving, as it does, to keep out the binder who is not qualified by experience or plant to carry out the work.

On the other hand, there are undoubtedly some matters between binder and librarian or publisher or private customer that should be the subject of specific statement in writing. Such as, for instance, that all leather should be acid-free; that the gold used on all books above a certain price should be English gold, 50/-, or some other price. That the cloth should be So-and-so's at so much a piece. But the more

satisfactory method is to have samples submitted and to use them as standards by which to test the binding, materials and workmanship, from time to time. A book here and there may be taken to pieces during the year to ascertain the materials and methods used in those parts of the work hidden from view. The cost of this is small, while it demonstrates the satisfactory nature of the work, or makes it possible to determine any nefarious practices. However, if a specification is considered necessary, it is at least as well to have one with the elements of satisfaction in it. I therefore give specimens of increasing detail, commencing with a simple form that may be used for lending library work of everyday type.

Binding specifications naturally divide themselves into two classes: one, publishers' bindings, or, as it is often termed, 'case work,' from the fact that the cases are made apart from the book; and, two, binding as it is usually known, where the covers are built up round each volume stage by stage. I do not admit that this should be so; I merely state that it is. And as the librarian or other customer may, on occasion, have need to get a book 'cased'; and as some librarians are already refusing those

books not bound with some regard, however remote, to efficiency; and as, in the third place, this book is not written for librarians alone, I am including specifications for case work as well.

The first of these may be regarded as giving the minimum requirements for a satisfactory publishers' binding of, say, a five shilling net book, 8vo. in size of about three hundred pages.

SCHEDULE.

Title of book Binder
No. of copies Date

Directions for binding:—

SHEETS to be folded evenly.¹

SEWING to be one sheet on² by.....machine.³

THREAD to be⁴ of number⁵ quality.

TAPES to be three in number of.....⁵ quality; top
and bottom tapes to be $\frac{3}{4}$ inch from head and tail
of book.⁶ Slips or ends of tapes to be one inch
in length.

BACK rounded.

PLATES to be folded round, or in, a section and sewn.

BOARDS to be strawboard of⁷ in weight.

CLOTH to be.....⁸ fast colour⁹ at
..... per piece (or yard).

LINING to be¹⁰

END PAPERS as sample.¹¹

GLUE of¹² quality.

LETTERING to be on back, as design herewith, in Dutch
metal.

NOTE: Tapes and lining to be well glued down to
boards. Books not to be unduly pressed.¹³

In the above, those necessary conditions

have been filled, while those about which there is any matter of selection, such as cotton or linen thread, have been left vacant.

The second schedule shows a nearer approach to perfection in case work and might be used for, say, a guinea book, Royal 8vo. of about six hundred pages.

Title of Book Binder
No. of copies Date

Directions for binding :—

SHEETS to be folded evenly,¹ all soiled or broken sheets to be withdrawn.

SEWING one sheet on² by machine.³

THREAD to be.....⁴ of number.....

TAPES to be five in number, $\frac{3}{4}$ inch in width, of.....⁵
quality, two tapes to be $\frac{3}{4}$ inch from head and tail,⁶
remaining three tapes to be at even distances.
Slips to be $1\frac{1}{2}$ in. in length. First and last sections to be linen jointed.^{6a} Linen extension to be same width as length of tapes.

BACK rounded without breaking.

PLATES to be guarded (no odd sheets) and sewn.

TISSUES loose insets.

BOARDS to be blackboard of.....⁷ weight.

CLOTH to be:.....⁸ fast colour⁹ at.....
per piece (or yard).

LINING to be¹⁰

END PAPERS as sample.¹¹

GLUE of¹² quality.

LETTERING, etc., to be on back, and front cover, as design herewith, in English gold at

NOTE: Tapes, joint, etc., to be well glued. Books not to be unduly pressed.¹³

The greatest difference between these two specifications would naturally be found in the quality of the materials. To take cloth for an example: while cloth at sixpence, or even less, a yard might do for the five shilling book, something at one shilling and threepence might be reasonably looked for in the guinea book.

In the case of leather bindings for books of five shillings or more in price, there is no question that the binding should be built up, and under these circumstances the library binding specification may be accepted as a basis.

A specification for books in bulk, as distinct from special books needing special bindings, may have one of two objects, or both. It may be a bona fide attempt to define the conditions of binding, or it may be nothing more than an offer of some common ground on which all the firms entering may give a price: two objects which the librarian will recognise as widely different. In the latter case, it is sufficient to state that the leather used shall be acid-free, flexible or loose back as instructed, machine sewing permissible but not head and tail splitting; three, four or five tapes to be used. And prices might then be asked for the various styles it is proposed to use. Where something more is re-

Hand Shaving



SHAVED WITH A TWO-HANDLED KNIFE WITH EDGE TURNED.

quired and it is proposed to attempt the almost impossible task of drawing up a specification for re-binding, upon which proceedings could be taken for default, or to provide for the contingency of a tender from a binder unacquainted with the particular class of work in question, something after the following will be required. I take first the cheapest form of binding, ranging in price from ninepence or even eightpence-halfpenny to a shilling. And here I may remark parenthetically that it is possible to get a book re-bound for so low a price as fourpence or fivepence: whether the binding at such a price is worth doing is a matter open to question; certainly it is quite useless for library work.

SPECIFICATION FOR RE-BINDING.—I.

CHEAP STYLE.

OLD COVERS to be stripped, and the backs cleaned.

SECTIONS to be collated.

SHEETS to be machine sewn without splitting head and tail.¹⁸

PLATES may be tipped-in where necessary; in the case of fiction they need not be included in the re-binding.¹⁴

TAPES to be not less than three in number.¹⁵

LAST SECTIONS to be guarded, and tapes and extension of joints to be well glued down.

CLOTH to be equal to sample.¹⁶

BOARDS to be single blackboards.¹⁷

LETTERING to include author, title, and number, in gold.

It is quite possible that the library will receive a better binding than that outlined above ; but this is all the library can reasonably insist upon for a cheap binding that shall be equal in its way to the paper of the books for which it is proposed to use it. For instance, in the case of a binding at ninepence per volume for an ordinary novel not likely to stand the wear and tear of more than fifty issues, it is not politic to insist upon the binder procuring and using a special tape which may not suit the sewing machine he uses.

Where a better price is to be paid for the work, something more may be insisted upon.

SPECIFICATION FOR RE-BINDING.—II.

CLOTH.

OLD COVERS to be stripped and back cleaned.

PAGES to be collated and damaged leaves made good.

SHEETS to be machine sewn without splitting head and tail.¹⁸ Stabbing¹⁹ must not be resorted to ; where necessary, the sections may be overcast.²⁰

PLATES may be tipped-in but should be sewn wherever possible.

TAPES to be of good width and quality, and must be laced if single board is used, or left good length for split boards.²¹

FIRST AND LAST SECTIONS to be guarded and the extension glued between the boards if split boards are used.²²

BOARDS to be of good quality blackboard ; old covers must not be used.²³ Single or split boards may be used at the discretion of the binder.²⁴

BACKS may be either hollow or tight, according to the quality and condition of the paper, at the discretion of the binder.²⁵

CLOTH used to be⁸

LETTERING (Name of Library—block supplied—²⁶ author, title, and two line (or three) class mark and shelf number) in English gold on back.²⁷

LABELLING not (or) to be included.²⁸

In the case of half or quarter cheap leather bindings at a price about equal to higher-class cloth bindings, the same specification would be suitable with the necessary alterations. These would include the substitution of 'leather' for 'cloth' at the head of the sheet, and instead of cloth in the body of the specification, the clause would read :

Leather used (sheepskin unsplit, oasis, goat, or whatever may have been decided upon) must be guaranteed acid-free.

We come now to the specification for a good serviceable leather binding, costing from a shilling to one-and-six, an 8vo. volume according to the local conditions. As this binding may be reasonably regarded as permanent, and in the case of larger books involving anything up to three or four shillings, for a royal or imperial, still

more details may be given with more minuteness. Although even here, however, an unscrupulous binder would not find much difficulty in evading parts of the specification without much fear of detection.

SPECIFICATION FOR RE-BINDING.—III.

LEATHER.

OLD COVERS to be stripped and back cleaned; all old stitching to be cut and the paper undamaged.

PAGES AND PLATES to be collated, all damaged leaves to be made good by repairing, and missing leaves to be obtained and replaced if the book is still in print.

SHEETS to be machine sewn without splitting head or tail.¹⁸ Stabbing¹⁹ must not be resorted to; and where oversewing or overcasting are necessary, stitches should go to an inch.²⁹ Each section must be lined down the centre with jaconet.

PLATES must be guarded and sewn through.³⁰

FOLDING MAPS AND PLATES must be entirely mounted on thin linen.³¹

TAPES should be not less than $\frac{1}{2}$ inch wide of³² quality, and not less than three for 8vo. sizes, four for royal 8vo., five for imperial 8vo., and a correspondingly larger number for increased sizes. Tapes must be laced and beaten if single boards are used, or left with good length for split boards.²¹

FIRST AND LAST SECTIONS to be guarded, and the extension glued between the boards if split boards are used.²²

BOARDS to be of⁷ weight for thick, and of⁷ weight for thin lining board; or if⁷ weight of single boards are used for doing 8vo. vols. of ordinary thickness, best.⁷

black board of quality to be used. Old covers must not be used. But the binder may use his discretion as to the use of single or split boards.²⁴ Weight of boards must increase proportionately with the size and weight of each volume.

BACKS rounded, may be either hollow or tight at the discretion of the binder according to the quality of the paper.²⁵ Tight backs must be well rubbed off when glued. Loose backs must be well and carefully lined with stout brown paper.

LEATHER to be hogskin, acid-free, and belly portions must not be used.³³ The binder will be required to deposit a guarantee that the leather is not imitation³⁴ and is free from mineral acids.

CLOTH SIDES to be.....³⁵.

LETTERING and

LABELLING same as in preceding specification.

There are still two specifications to be dealt with. One for a better class of leather binding in bulk, and a specimen specification for a single volume requiring special treatment. The specifications I have already given are for work in most common use in public libraries and mechanics' institutions and such other libraries where the wear and tear are very heavy, and where there is no available money for binding books—lending library books at all events—with that sumptuousness which gladdens the eye and gratifies the susceptibilities of the book-lover. The lending

department of the ordinary library is severely utilitarian. There is, fortunately, a large class of libraries where these rigorous conditions are not found, and a large number of municipal libraries in the reference departments of which it is possible to allow some latitude for the binding of books with taste and beauty. Here one would specify, without doubt, morocco or sealskin, although both oxhide and hogskin are available, and are not to be despised when a strong and dignified style is required. Oxhide for large books is less known than it deserves to be in this country, more particularly as it is capable of taking good colours and giving a splendid surface.

The repetition of these clauses is somewhat monotonous, but it must be remembered that I have expressed myself as unfavourably disposed towards specifications in general, and that these are provided for those librarians who insist upon them.

SPECIFICATION FOR RE-BINDING.—IV.

LEATHER.

OLD COVERS to be stripped and backs cleaned ; all old stitches to be cut, the fold to be undamaged.

PAGES AND PLATES to be collated ; all damaged leaves to be made good by repairing, if damage is slight, or by replacement if serious.³⁶ Missing leaves to be obtained if the book is in print.

SHEETS to be machine or hand sewn,³⁷ without splitting head or tail. Stabbing¹⁹ must not be resorted to; and all battered sections must be oversewn or overcast²⁰ with²⁹ stitches to the inch.

PLATES must be linen guarded and sewn through.

FOLDING PLATES AND MAPS must be entirely mounted on thin linen.

TAPES (or strings³⁸) must not be less than 3 for sizes to cr. 8vo., 4 for demy and royal 8vo., and an increased number proportionately for larger sizes. Strings of may be used, and the back sewn.

TAPES or strings must be laced into single boards,²¹ and beaten down.

FIRST AND LAST SECTION to be guarded, and the linen of the joint well glued down to board.

BOARDS to be of⁷ weight as a minimum for demy vols. of ordinary thickness, increasing in weight for larger volumes. Old covers must not be used. Boards must be best black millboard of⁷ quality.

BACK must be rounded, hollow and with raised bands and worked headbands⁴⁰ in all cases. The raised bands to be 'made' with acid-free⁴¹ leather.

LEATHER must be guaranteed acid-free, and the binder must lodge a written guarantee that all leathers used will be free from mineral acid, and not imitation leather.

CLOTH must be.....²⁶.

LETTERING and tooling must be hand done, of a suitable character, and not more than two volumes to be exactly the same design.

It is not possible to make a specification for general application to those books

requiring special treatment. The only satisfactory method is to submit the work to a binder who is an expert in that class of work, and ask for a description of the repairs required by the book. A price for the work may or may not be asked for. The better plan is not to ask for a quotation beforehand, because, in taking the book to pieces, it may be found to require more repairs than was at first anticipated. If the binder is limited by the price of his estimate, he will not be inclined to devote the necessary time to it and lose money on his work.

Again, however, I give a specification for an 8vo. volume—a specimen only for the use of those who insist upon a specification for everything.

SPECIFICATION.—V.

Title of Book Binder
Date

Take off old covers, clean down back of each leaf, carefully dusting.

If found damaged, cut all round to half an inch margin from print page: level the edge of each leaf all round and paste on to cut mount, giving a margin of.....

PAPER used for mounting must be hand made of.....⁴²
weight of pure rag. Mount all leaves in the same way, including plates. Leaves damaged more than

can be cut off for mounting must be covered on both sides with best gauze, before pasting down on to paper mount.

PASTE used must not contain alum or any injurious preservative or other ingredient. Mounted leaves to be overcast in bunches of not more than eight with fine silk and sewn with silk or linen thread No., round three flax strings. Back to be lined with acid-free leather of suitable thinness. First and last sections to be guarded with linen joints. Strings to be laced into single boards of best black millboard of weight. Back to be carefully rounded by hand. Hollow back. Five raised bands. Full leather binding in acid-free seal-skin, fine grain, light brown. Leather to be selected free from blemish but not necessarily of even colour.⁴² Worked headbands and silk marker. Back, and front cover to be hand-tooled to design submitted. End papers to be of quality and design submitted. Edges to be gilt with best English gold leaf of All glue used must be best Scotch glue, well beaten. Boards to be best English millboards of^{23 24} weight.

In each case the method of treatment of the edges, i.e., whether marbled, gilt, etc., should be stated. The object of gilding is to prevent the dust from lodging permanently.

So much for specifications.

In the specifications for binding in bulk provision must be made for extras such as mounting, folding plates and maps.

In drawing up rulings for quotation of prices it is necessary to state as near as it is possible to get in inch measurements, or

portions of inches, the sizes, because there is a great diversity of opinion regarding sizes, and if all the binders tendering are to quote for the same thing it must be clearly understood what that is for which they are quoting. There are more than fifty styles that could be quoted for, so that it is out of the question to give a complete ruling for a schedule of prices, more particularly as they refer to different classes of work.

So far I have dealt with the specification ; and as the above ruling provides for the schedule of prices, there still remains the advertisement and the conditions on which tenders are submitted. Before leaving the schedule of prices, however, I may remark that prices are sometimes asked for in the form of a discount off prices given by the authority asking for the tender.

When advertising for tenders it is desirable to state that the council or committee, as the case may be, will not bind themselves to accept the lowest or any tender. It may be said that the advertisement should state that full conditions of the contract and particulars of the work are set out in the particulars and form of tender. In this way no unfairness is practised on the tradesman.

.....Library [or as the case may be].
To Bookbinders.

Tenders are invited for binding books for the above Library for a period of

Forms of tender together with particulars of the work and conditions of contract may be obtained from the undersigned at a fee of shillings, which will be returned to persons submitting a bona fide tender and which shall not subsequently be withdrawn.

Tenders in sealed envelopes and duly endorsed "Book-binding" must be delivered at the address below not later than o'clock on

The lowest or any tender will not necessarily be accepted.

Signed

Address.....

Date

A form of tender and conditions drawn up by a solicitor is appended. The least that can be said for it is that it is legal in form and is in constant use in a large borough. For eight years I have not had a form of tender nor a specification in use. The danger of a specification, with its form of tender, is that work done under it may conform to the specification and yet be unsatisfactory. If there is no specification contract there is no liability, and the work is done even better than would be the case otherwise, as the binder is aware that it is only while his work is executed in a satis-

factory way that he will continue to receive it. However, the following conditions are suggested :

I [WE] hereby tender and agree to execute during a period of year from the in accordance with the printed Conditions of Tendering and Contract at the end of the within schedule [and with the samples at (if any)], such one or more of the descriptions of bookbinding appearing in the within schedule against which I [we] have marked a price as may require at the price so marked respectively. And I [we] declare that the acceptance of the Tender so far as regards one or more of the said descriptions shall be binding on me [us] notwithstanding such acceptance may not comprise all the items for the supply of which I [we] have tendered, and shall not be deemed to bind to accept the Tender so far as regards the other items or any of them. In the event of the acceptance of this Tender or any part thereof I [we] agree to enter into a formal contract (with a surety) embodying the conditions herein contained and to execute the same within 14 days after submission thereof. Should no such formal contract be required then this offer together with the acceptance thereof by shall constitute a binding contract embodying the said conditions in respect of the items set out in the said acceptance.

Dated the.....day of.....1912.

Signature of Tenderer.....

Address

Occupation

[Here follows the Schedule.]

the period aforesaid the contractor shall pay to
as liquidated and agreed damages,
and without prejudice to any other claims arising
out of this contract, the sum of 2s. per volume
for every week or part thereof after such time
until the same shall have been returned.

7. **WAGES.** Fair Wage Clause (if any).

8. **REJECTION.** Rejected goods, materials or work are
to be removed by and at the expense of the con-
tractor, within seven days after notice shall have
been given of the rejection. If not so removed,

may cause the goods,
materials or work to be removed at the risk of the
contractor, and charge the contractor with all the
expenses incurred therein. The rejection of goods,
materials or work by

shall be final. In case of failure by the contractor
to deliver goods or materials or execute work within
the period limited for delivery, or in case of goods
or materials delivered, or of workmanship wrought,
not being of the stipulated quality, weight, measure
or efficiency, or in case of goods or materials being
delivered without a correct invoice, or bill of parcels
in duplicate,

shall have
power to reject any such goods, materials or work,
and to purchase or order others or other work
instead, unless the contractor shall himself forth-
with supply or execute others or other work that
shall be sufficient and satisfactory, and any excess
of cost so incurred by over the
contract price, together with all charges and ex-
penses attending the purchase or work, shall be
recoverable by from the contractor.

9. **TRANSFER OF CONTRACT.** The contract is not nor is
any part share or interest in it to be assigned or
underlet by the contractor directly or indirectly
without the written consent of

10. PAYMENT FOR SUPPLIES. With each delivery of goods and on completion of each work under this contract, invoices or particulars in duplicate are to be delivered by the contractor. The duplicate will be returned by _____ with the quantities or numbers received duly noted thereon. The contractor is on or before the _____ day of each month to send in his account to _____ with the amount due up to the last day of the preceding month correctly calculated according to the prices agreed upon, whereupon (after examination of the claim) notice shall be given to him of the day on which he or his authorised agent may attend for payment.
11. SURETY. A contractor, whose tender in whole or in part has been accepted by _____ shall furnish _____ with the name and address and occupation of a surety of whom can approve, and such surety, when so approved, shall sign this contract in addition to the contractor.
12. DEFAULT. In case the contractor makes default in any respect it shall be lawful for but not obligatory on _____ to rescind the contract, and the surety shall immediately upon demand, and whether the contract shall or shall not be rescinded, pay to _____ the sum of _____, to be recovered as agreed and liquidated damages. The moneys, if any, due or accruing due to the contractor may be retained by _____ at option in payment or part payment, as the case may be, of the said damages.
13. SERVICE OF NOTICE. Notice to the contractor shall be deemed to be sufficiently given if given or left in writing at his named or his usual or last place of abode or business. In all cases time shall be of the essence of the contract.

14. TENDER AND CONTRACT. The tender or a copy shall be attached to these conditions which together are to form the contract.

{	Dated this.....day of
	*Signature of contractor
	Address of do.
	Signature of witness.....
	* Address of do.
	Signature of surety
	Surety's address and occupation.....
{	
	Signature of witness to surety's signature.....

* Not to be signed until after acceptance of tender.

Sub-contracting is frequently objected to, but what *is* sub-letting or contracting? A small man might buy his split boards ready 'made': does this invalidate his contract? It is not an uncommon thing to ask tendering binders to submit samples showing the method of sewing and forwarding he proposes. This is not in accordance with the spirit of a specification, which is expressly used to describe what is wanted. If the binder is allowed to submit samples of his own design, it follows as a natural corollary that he should be allowed to amend the specification! If he is not allowed to alter or amend it, the samples submitted should be in accordance with the specification.

Nailing on



NAILED ON BOARDS IN A WARM ROOM TO MAKE THEM DRY SMOOTH.

Notes to Specifications.—¹ Bad or careless folding frequently nullifies the care taken in imposing and printing the sheets. ² 'One sheet on' is a term signifying that single sections shall only be sewn, not two together, except in the case of books with many sections or sheets of thin paper. ³ The various machines used in book sewing are too numerous to be given here, and many binders have only one or two varieties. In many cases there is not much to choose between their work. ⁴ This must be filled up as linen, or cotton, or silk, according to the fancy of the customer and the use the book is likely to get and price to be paid. Linen thread, quality for quality, is, of course, much stronger, but fluffs and frays more readily. Get samples, and choose thickness, i.e., number, etc. ⁵ Much the same applies to this as to 4. It is presupposed that tapes will be used. If tapes are not to be used, the webbing or mull to be used must be specified. ⁶ This is important, as it prevents excessive strain by distributing the weight, and avoids cracking of end papers, etc. ⁷ When giving weight of boards, the size must be stated. This, of course, does not mean that such a size board must be used, but it fixes the quality. ⁸ State exact cloth and make to be used, or cloth at so much per yard or piece from maker. ⁹ Fast colour may be fast to sunlight or fast to moisture or both. State whether you require it to be one or both of these. ¹⁰ Lining is not always used with tapes, but it is desirable. Give exact quality, or approve sample submitted. ¹¹ Both for pattern and quality it is better to choose end papers, either instructing binder to use a particular kind, or obtaining samples from him. In the cheaper bindings it is not necessary to do this. ¹² Glue, as I have mentioned elsewhere, may be 'elastic'; but elastic glue has yet to prove itself. 'Best' glue means nothing: a particular quality or price should be stated. The 'prime cost' of the architects' speci-

cation will ultimately, I have no doubt, find its way into the specifications of those obliged to use them, but realize their uselessness under present conditions. ¹³ Beating, or more commonly now, rolling, has somewhat the effect of unduly pressing the paper until the leaves more readily tear out. In the case of re-sewing or re-casing, as it is also termed, rolling has the effect of lessening the bulk of the paper without reducing the size of the cover, with the result that a re-cased book has the appearance of a street gamin in the clothes of an adult. ¹⁴ In topographical or historical fiction plates are sometimes of importance ; but in the everyday novel of the lending library, with a few plates which might equally well answer the purpose of other novels, they have no importance and only serve to weaken the binding and shorten the life of the book. ¹⁵ In this cheap style of binding, costing about ninepence a volume for cr. 8vo., it is not fair to look for more than three tapes ; and as the binding is light, if the tapes are properly laced three will be found sufficient. ¹⁶ For instructions regarding cloth, see the chapter on the subject. ¹⁷ Blackboard, or millboard, can be obtained in various qualities, and sample should be obtained or quality described. It must be remembered that a good strawboard may be better under certain circumstances than a poor millboard. ¹⁸ In certain machine book sewing, the head and tail, or top and bottom of each section are split to allow the thread to enter. ¹⁹ Stabbing is of varying degrees of objectionableness. For pamphlets, where the stabbing is in a straight line as shown, there is not much to be said against it, but it should be objected to for book work, particularly where the stabbing is done in stitches of a long diagonal stride. ²⁰ Oversewing or overcasting, if done properly, is a splendid thing and looks well. It is referred to elsewhere. Even in this there are 'degrees' usually

determined by the number of stitches to the inch. The sewing with a running lock-stitch straight down the back (with or without linen) is another form of over-casting. ²¹ 'Split boards' is the term now applied to two boards glued together with the tapes and the ends of the linen joints between them. The outer board is thick and the inner, or lining board, is a thin one. This, as explained elsewhere, takes the place of the 'lacing' in the older style of attaching the boards to the book. If not done properly, the thin board 'draws' the thick outer one, giving the cover the appearance of having become warped. ²² Split boards are, as a rule, cheaper than lacing, because the latter is hand work involving two operations for each tape. So far as the relative advantages of the split board and lacing are concerned, they are somewhat in favour of the latter, but not sufficiently so to make it worth while to insist upon lacing the tapes or string for the cheaper forms of work. ²³ In cheaper forms of work, and by unscrupulous firms, the strawboards of publishers' covers are sometimes stripped of their cloth covering and used again. If the boards are good, the objection is not to their being used again for smaller books, but to strawboard being used at all. In some libraries, re-bound books are sometimes sold for the sake of the covers, and these good blackboard covers are certainly to the advantage of the casual customer of the smaller binder, who probably knows nothing about the special work of library binding. ²⁴ Reference should be made to 21 and 22. If the librarian or other customer responsible for the binding contract prefers one or other form, the clause in the specification should be altered. ²⁵ The librarian or other customer may, if he choose, decide this for himself, but until the back of the book is cleaned and the condition of the paper at the folds revealed, it is scarcely safe to do this. The old fetish that the tight back or flexible binding is

essential has gone the way of most similar superstitions. So much depends upon the condition of the paper and the respective weights of the book and the binding. Every librarian is probably familiar with the ugly appearance of those bindings which have 'sagged' at the back. ²⁶ It is better to have this block quite clear, and for this reason the Borough Arms or some other detailed device is not to be recommended. ²⁷ If the side of the book is to be embossed it should be stated here. The price of the English gold should be stated, as that is the generally recognised method of stating quality: 'best' may mean anything from 50/- upwards. The old 'test' of whether gold was English or not cannot now be looked for, as the old practice of using bibles for the manufacture of the books in which the gold is sold has now been discontinued. ²⁸ Strike out 'not' if it is desired that the labelling in the case of library books is to be included in the work of the binder. ²⁹ There are many ways of overcasting or oversewing too numerous to be fully described here, and some of them the subject of letters patent. Even in the best books it is sometimes necessary, and in the worst it is always an advantage: in fact it is only by this method that a book can be bound again and again, each time getting a little nearer the print page, until—presuming the book is worth re-binding at all—it becomes necessary to put new margins, as described on p. 133. If either of the patent or proprietary methods of oversewing are desired, provision must be made in the specification; if the ordinary or original method is desired, it is advisable to say how many stitches are to be used. The larger the number of stitches, the less they 'pull' on the angle, but being closer together the paper is perforated by a larger number of holes and consequently weakened. In all cases, however, the back of the sections should be cut to remove the fold, in this way reducing the bulk

to the minimum. ³⁰ 'Tipping' is simply pasting the edge of the plate and inserting it. In 'guarding,' the plate, if sufficiently wide—as it can be in the case of new books—is folded round the section and caught up by the sewing. In the case of re-binding, a strip of linen or tape must be pasted down the edge and enough left to fold round the section. ³¹ It is usual to count this as an extra and quote for it at so much a square foot or portion of square foot. It should be done in all cases where the map is worth preserving and is not likely to last so long as the rest of the book. ³² Specify quality, make, or pattern sample. ³³ The belly portions are thinner and may be recognised by the faint hair marks. See other chapters for relative value of leathers for binding. ³⁴ It is almost impossible for the amateur to discriminate between real and imitation leathers when on the books. ³⁵ Fill in details as decided upon. ³⁶ This only applies to those books 'in print.' Sections can be obtained, as a rule, by the binder from the publisher for a few pence. ³⁷ This must be decided by the customer after having read the chapter devoted to the subject. ³⁸ The controversy, tapes *v.* strings, has been a long one and is not settled yet, as so much depends upon the respective qualities. It must be decided upon individually. Tape is now much more commonly used. ³⁹ If strings are used, the quality and material must be stated. The size of the book regulates this largely, and samples should be asked for. ⁴⁰ The worked headband carried across the book from board to board is a means of additional strength; any other headband is of no value in this direction. ⁴¹ Bands are invariably 'made': the best method is by two pieces of leather cord cut to shape. ⁴² In giving weight of paper it is essential to give the weight in a certain size, to identify quality. ⁴² Unbleached skins of light colour frequently show flesh markings.

CHAPTER IX

FINE BINDINGS

THE opinion that any binding, so far as appearance is concerned, will do for a public library is very generally held by the public, but it is surprising, perhaps, that this sentiment should be found amongst members of committees; and even librarians—some of them at least—hold the same view. It is true that the suggestion has been made, and adopted in some places, to differentiate between the various classes of literature by the use of different coloured leathers and cloths for bindings, but it is rather by accident than design that this has resulted in the use of brighter colours than the dirty, drab, uniform tint that so frequently distinguishes the public library book. The general adoption of this colour is due, no doubt, to the impression that it does not show the dirt so readily. This impression is, however, largely mistaken, as has been

realized where other colours have been employed to any large extent. Variation in colours is quite a small step, but it is nevertheless an advance. There is no valid reason why a much more ornamental style of binding should not be introduced; and for reference books and books of value in the lending library, a finer style of binding might be adopted with advantage.

It is significant that the average public library binding *looks* dirty from the time it is first sent out, and many people will not use public library books, not because they have any prejudice against the institution but because they think the books *are* dirty. Of course, in some libraries this is admitted to be true, but where a regular system of withdrawal from stock is maintained, and dirt, or a dirty appearance, is one of the reasons for withdrawal, it will be found that many books are taken from stock because, although they are not dirty, they appear to be so. One aspect of the subject is treated in the chapter on Materials and Cost, but even within the limits of the various materials there is ample scope for the introduction of brighter and finer styles, and, where the principle has been introduced, there is room for its extension.

Another argument in support of this plea for a finer style of binding is an æsthetic one. No one who has carefully observed book-lovers, or even the general reader, can entertain any serious doubt that a handsome and a tasteful binding increases the pleasure of reading. Reading as reading is an æsthetic enjoyment in itself, but it is dependent to some extent, at least, on the nature of the materials of the book in use. Publishers have realized for many years past that covers can be made attractive according to the class of book. 'The same style of cover that helps to sell a book will also assist in its circulation; and while it may not be in keeping with the dignity of the institution to use the florid and ornate styles found on publishers' covers, there is much that may be done in this direction before the limits of propriety are reached.

For practical purposes the bindings of a public library may be roughly divided into those for the books in the reference library, and the others for the volumes in the lending department. The improvements suggested for the latter would be in the way of a greater variety of colours, the use of a wider range of materials, the substitution of false raised bands for the

blind fillet in general use ; a little ornament, to the extent of a gold fillet across the corners on half bound books, or corner-pieces at the head and tail on the back, gilt tops, headbands, artistic end papers, a heavy gilt square round the number. The introduction of some of these would add nothing to the cost of the binding ; the adoption of the whole of them, where none is in use might considerably increase the cost ; but a judicious selection would materially improve the appearance of the lending library stock without adding appreciably to the present price. The books in the various classes would, obviously, require differential treatment : the fiction class lending itself more readily than any other to the more pronounced styles.

Improvements in the binding of books in reference libraries must be looked for more in regard to materials than in ornamentation, although even here several of the suggestions made in connection with the lending library may be adopted without destroying the sombreness which is supposed to be a valuable asset of the reference library, at the same time greatly increasing its attractions. Gold-tooled morocco or seal of a rich crimson is decidedly more striking and attractive than black pigskin

blind-tooled, and probably more lasting on books not in constant use. Presumably the books in the reference room, apart from the quick-reference books such as directories and dictionaries of all kinds, are all of permanent value, and in some cases unique; so that bindings worthy of the books are but adding to their value, and, if such an event were conceivable, would realize higher prices in the event of their being put up for sale.

There still remain those bindings giving the title heading to this chapter: fine bindings. A few of the larger libraries have on exhibition specimens of fine bindings from past periods. These have been bequeathed to the libraries in some cases, purchased in others, but the disproportionate importance bestowed upon them has given rise to the general impression, if not to the universal belief, that fine bindings belong exclusively to bygone years, and that such work is not now to be obtained. This is an unfortunate mistake. Work in all ways as good as, and in some better, than this old work can be obtained at the present time, but not, of course, at the price paid for binding an ordinary novel in library style. This class of work is usually to be found only in the libraries of the great

private collectors; but in so far as the public libraries are the collections of the community it seems desirable that they should contain at least specimens of this modern high-class craftsmanship. In fact, some of the libraries which are not faced with the terrors of 'making ends meet,' infinitely more harassing in a public institution than in private life, might well bind many of their books in these fine bindings. Fine binding is a relative term, denoting a book covering which may cost anything from five shillings to a hundred pounds, or even more. But it is not suggested for a moment that public libraries should compete with private collectors for the purchase and collection of those freak bindings represented by jewelled covers, enamelled corners and ornaments, or boards inlaid with gold and silver and ivory. These bindings are more or less the children of fashion, that come and go with the ebb and flow of popular desire as represented by the taste of millionaires. The fine hand work displayed in tooling, blind and gold and silver, has always been, and still is, regarded as the highest art of the bookbinder—perhaps because no limits can be placed upon the work, while the intrinsic beauty is beyond denial. The

plan has been adopted of showing under glass one or more specimens of this class of work. It is not necessary that the boards should be covered with designs: simplicity is sometimes the highest form of art. It is *almost* essential, however, that the binding should be full leather of the highest class. A binding has been introduced in which the leather back and corners are joined by a leather edging all round, so that instead of a half-binding we have a three-quarter, with what may be described as a cloth centre-panel on both boards.

It would be invidious to mention the names of the great craftsmen of the day who are producing fine bindings. But it is not so generally known as it deserves to be, that the designing of a book cover requires the display of a profound knowledge of the highest art. It is in this respect that so many good craftsmen fail: reverencing their work as they must, and do, they overlook the great importance of the harmony of the decoration and its conforming to the principles of art in technique and feeling. But it must be remembered that the binder—and here I refer to the craftsman who is something more than a journeyman, although he may

be that too—is able to carry out designs submitted to him.

Fine bindings, I am convinced, will more and more, as time goes on, find their place in our public libraries, as their owners realize that in them they have their great collections and take a genuine pride in their possessions.

CHAPTER X

HOME BINDING IN THE LIBRARY—REPAIRING PLANT—LETTERING AND NUMBERING

SEVERAL librarians—for the most part public libraries—have laid down a more or less extensive plant for the work of binding the books of their libraries, or of repairing them, or of lettering and numbering them when first received from the contractor. There are here three grades or degrees varying considerably in principle. While the last is easily defensible, the first demands the most careful scrutiny with regard to cost and the quality of the work before being adopted by any library committee, more particularly as the plan can be made to look so attractive beforehand and so successful afterwards—on paper. The British Museum bindery, situated on the premises, is often held up for admiration as the ideal, but it must be remembered that the British Museum binding, al-

though done on the premises, is a contract with a business firm and is not conducted as an integral part of the Museum system.

I would not for a moment say anything to detract from the reputation of librarians as a class efficient in most classes of bookwork, but I do not think it is derogatory to them to say that they cannot be expected, nor can they expect, to include in their many attainments all the qualifications of the practical library binder. The closer one's acquaintance with the craft of the bookbinder becomes, the more one discovers there is to be known not only in the generalities of the work but also of the innumerable materials used. And it is not sufficient to employ a journeyman binder from the workshop of a jobbing master to undertake the varied and important work of a large public library where it is essential that much of the work shall be good and lasting. Even if in rare cases the workman has the necessary knowledge of full and half-bound work, of various sewings, of cloth and leather, he will not be possessed of the intimate knowledge of buying, nor will he possess that rare gift of administration—at least, not at the wage the average public library is prepared to pay.

The return of expenditure on this department of the library is all too frequently misleading. I do not say it is so in all cases, but in those I have seen. It is true the accounts sometimes show a proportionate charge for light, but it is rare that 'fuel' is an item; rent, too, is absent from the list of charges; occasional assistance from members of the regular staff is omitted, and an item, which, in a fair return would be perhaps the heaviest, is a portion of the staff salaries for clerical and administrative expenditure, postage and carriage, etc. In the largest libraries where there is work for a numerous staff of binders, each doing specialized work and requiring the services of a competent manager or head of the department, there is everything to be said in favour of the home bindery. At the same time, it is impossible to say what is the smallest library at which the plan can be successfully adopted. Opinions vary, the sums expended annually being expressed as from two hundred pounds upwards: certainly it is difficult to see how any economy can be effected by a home bindery where the normal expenditure on re-binding is less than £200 per annum. And as, in those libraries which are sufficiently large, there will be a trained manager



WORKED OUT FLAT WITH A BRASS-BLADED TOOL CALLED A SLEEKER
WHILE IN THE SEMI-DRY CONDITION CALLED SAMMED.

at the head of the department, it is unnecessary to describe the requisite plant for a complete bindery, or to submit a plan of the lay-out of the work.

The question of repairs is a different matter, particularly in those libraries where there is a large amount of one class of work, viz., the repairing and re-casing of fiction. Here, where the expenditure is comparatively small, it is not so necessary to show a 'profit': other advantages, such as a quick return of the volumes, may be allowed consideration. But these advantages should be substantial and unmistakable. First, the quality of the work turned out: and let me say at once, that while in theory it may be possible to turn out work up to the standard, in practice I think it is not possible that a man—and under the supposed conditions the staff will not consist of more than a man and a girl—who is engaged variously on repairs, re-casing, re-binding fiction, lettering and numbering, can be equally successful in all these branches as the men who in the trade bindery are engaged on their own class of work. This is so obviously the case in all trades that it does not need to be more than mentioned here. However, it is to be supposed that a man has been secured who can turn his hand

to all these various branches of the work ; and a girl has been engaged who can do equally well collating, folding, and sewing. The next matter for consideration is the amount of plant required.

Elsewhere, I endeavour to show that re-casing or re-sewing is false economy. But if re-casing and the commoner forms of re-binding fiction are to be done on the premises, a plough will be required : a guillotine is much superior, of course, but the cost is usually prohibitive. This is the largest and most expensive item of the outfit. The sewing frame with keys and bar complete and the finishing press come next, with the finishing stove, glue pot, letters and numbers, backing hammer and boards, gold cushion, knives, and other small tools, together with a supply of boards, cloth, leather, tapes, thread, gold leaf, glue, raw rubber, flannel, etc. And in estimating cost, the wear and tear of plant and replacement of tools must be taken into account. Here, again, it is to be presumed that a journeyman binder competent to perform the work has been engaged, and it is unnecessary to attempt to teach a man a trade he has already learned.

With regard to cost, however, the fol-

lowing estimate may be of some assistance to those librarians who are contemplating the formation of such a branch of work or who have already instituted it:

Wages of Binder	£90	0	0
Do. of Girl	45	0	0
Light	1	10	0
Heat and Gas for Stoves	2	10	0
Insurance of Employees and Premises	2	0	0
Proportion of Administrative Expenses	10	0	0
	£151	0	0

This does not include materials nor the cost of replacement of plant. For the present we will omit the latter, as it is scarcely likely to be more than three pounds a year on the binding that has been supposed. Materials vary considerably, according to the needs of the library and the tastes of the librarian, but for the purpose of showing the method of arriving at an estimate it will be as well to take an all-round average of fourpence as the cost of material on each volume re-bound, repaired, or lettered. If the cost of having the work done outside averages a shilling per volume, the difference is eightpence a volume. From this it will be seen that 4,500 volumes must be dealt with—excluding those casual repairs that require no material—before the establishment charges

are justified. If the cost of material is higher, or the price outside lower, the number of volumes treated must obviously be larger ; while if the conditions are more favourable to the home bindery, a smaller number of books treated will give an advantageous result.

These 4,500 volumes are those books bound in a transient form, not the finer bindings of the reference library, or the permanent leather binding of the better class library binding. Obviously, therefore, only the largest libraries can find any possible economy in the home bindery. There are many libraries, however, not falling into this category, where it would be found advantageous to employ a repairer. This repairer may be in some cases a man, but usually a girl will be found quite capable of executing light repairs : those light repairs which are the ' stitch in time ' that saves binding.

The other point not yet dealt with is the quality of the work. It has been said on occasions that if the home binder is able to re-sew and re-case books it is sufficient. This appears to be an error. It may be admitted that twenty years back re-sewing was possible, but it is doubtful if even then it was advantageous. Now, however, the

operation invariably results in permanent injury to the volume. The paper of the ordinary book of the present day is of too poor a quality, as I have shown in another chapter, to stand the strain of sewing and re-sewing, rounding and backing three or more times. Even under the most favourable circumstances, re-casing is not to be recommended except in the few cases where the cover has some intrinsic value. And in these the original cover should be bound up with the new and probably stronger cover. In addition to this unfair wear demanded from the paper on which the book is printed, and the consequent loss of life when the book is completely re-bound, there is the serious question of the quality of the work as it stands. The only reliable method of putting this to the test is to bind books of the same size, quality of paper, etc., the one batch in the ordinary way by the trade binder, the other by the home binder, and watch the result and the number of issues. If the books treated in this way are sufficiently numerous, the resulting average will be sufficiently trustworthy. The number of tests must be governed to a large extent by the variety of classes of readers.

When dealing with this subject many

librarians affect to despise 'finish.' But the 'finish' of a book is an important item of its binding, partly in its effect on the borrower, partly on account of the general loss of life where books are discarded on the ground of their poor appearance.

The last of the three subjects given at the head of this chapter is lettering and numbering. Where this is understood to embrace the classification mark or shelf mark it is quite easy to demonstrate the advantages, even to a small library, of doing the work on the premises. It is casual work occurring at such times as new books are purchased that under no circumstances in British public libraries can justify the employment of a regular workman, but can be readily performed by an intelligent member of the staff.

It will be seen that the numbering of a batch of books away from home is an expensive and irritating method. The monthly batch of books, we will suppose, numbers fifty volumes. The carriage on these, making a case weighing some eighty pounds, must be considerable in both directions; the books are absent a week or more, and the total value of the work done is something less than 5/-. To obviate this, various methods have been adopted, mostly

unsatisfactory and unsightly. These include small paper labels, plain and coloured, bearing numbers (in open-access libraries, minute stars, crosses, and circles, like confetti, have been used); cloth tags, leatherette paste-on labels, and leather labels glued on. In some libraries the books are not numbered at all on the outside, but this leads to great confusion on the shelves, with misplaced volumes.

The necessary outfit for lettering and numbering is small, and the total cost need not reach £5. The essential tools are, a finishing press, finishing stove, gold cushion, gold knife, a piece of rubber, a little cotton-wool and a piece of flannel, a small sponge or two, and a small quantity of glair and gold leaf, together with a set of 'handle' tools comprising figures 1 to 0 and letters are required. Where both class number and shelf number are shown, it is advisable to employ two sizes of figures or letters for the purpose of differentiating between them.

The method of procedure is as follows: Take as many books as the press will hold, in a pile, write the numbers to be impressed on the books on a slip of paper, beginning with the volume on the left. Apply glair to the backs with a fine sponge (the method of making glair will be found in the Ap-

pendix 'Recipes'), either all over or on that part where the number is to be impressed. When the first application is dry, go over it a second time. It is essential that the sponge should be fine and smooth, and lightly applied so that there is a complete coating of glair and not a surface streaked and broken. In finer work, the glair would be applied with a soft brush. It is necessary to have a third application of glair on some books, but as a rule two coatings are sufficient. Where the backs of the publishers' covers have been varnished, a little methylated spirit lightly brushed over with a fine rag or sponge will be sufficient to clean the small spaces required for the numbers and letters. When the glair is dry, but not hard, the gold leaf must be put on. Gold finishers, as a rule, take the leaf from the book, in which gold and silver leaf is invariably sold, with the knife. But this requires considerable practice: it is much easier to open the book at a 'gold page' and lightly, but quickly, turn it upside down on to the gold cushion, when the small leaf of gold will be found to have remained flat on the cushion. The leaf must be cut into pieces of the requisite size. A little practice may be required to do this without breaking

or tearing the leaf in other directions, but the 'secret' is to be found in keeping the knife perfectly dry and clean and holding it firmly when cutting, drawing it towards the person using it, and not lifting it until it no longer touches the leaf. These small squares are then lightly picked up by means of a piece of cotton wool, which, if not sufficiently oily to make the leaf adhere temporarily, may be made so by rubbing on the hair or face, when the natural oil will be sufficient to make the wool slightly adhesive. The leaf must then be pressed gently but firmly on the book without any side movement. If it does not adhere, the warmth of the fingers or the breath will quickly soften the glair. The books are now ready for numbering, and must be screwed up in the press. For this purpose it is not usually necessary to employ backing or other boards. Meantime, the tools have been getting hot on the stove. These should be sufficiently hot to hiss when pressed on a wet sponge, but not so hot that a cloud of steam results. Grasp the handle in the right hand, using the left thumb-nail to guide and steady the metal, then press firmly, and more or less heavily, according to the material, for a full second or so. The exact heat and the length of

pressure can only be judged by practice. When all the letters and numbers have been impressed, rub off the loose gold with the flannel and a little oil well soaked up. If it should still adhere to the book use the piece of rubber; or rub hard with the flannel and an extra quantity of oil. The rubber, if hard, should be boiled for many hours until soft. The flannel, when oiled, retains the waste gold leaf and in course of time may acquire some little value.

At one time English gold leaf was sold in small books made from bibles, but this rough and ready test as to the genuineness of the gold is not now available. But there is no doubt that English gold is most easily worked. Gold and silver dust, although cheaper, are not recommended, and if used at all must be applied only to the number or letter and not to the whole cover round about.

CHAPTER XI

REPLACEMENTS

THE question of the replacement of worn-out books or books withdrawn from circulation and requiring renewal is an important one at the present time, whatever it may have been in the past. The *average* life of a book—of all books in an ordinary municipal public library—is considerably less than twelve years, even when the reference stock is included, if the library is to be maintained efficiently. To make this statement clear it may be further explained as follows: that taking into consideration all causes—wear and tear, loss, disease and the resulting destruction, theft, and, not least, the progress of knowledge rendering previous publications out of date—a number of volumes equal to the total stock will require to be acquired each twelve years.

It is true novels are largely responsible for this high proportion, and if in the future

the circulation of fiction can be diverted to some other source, the figures will require material alteration or amendment. The ordinary novel in constant use does not enjoy a long life; and although it is not always necessary to replace all fiction worn out, the fact that it is *worn out* is an argument in favour of its popularity.

In these circumstances, however, it becomes necessary to look for the most economical and at the same time satisfactory method of procuring replacements of all classes.

Out-of-print books can only be obtained from the second-hand bookseller, or advertised for in the pages of one of the trade or other likely periodicals. Books out of date should obviously be replaced with the newest editions procurable; and in carrying out this part of the work publishers will be found, as a rule, quite honest, and willing to give information as to how far an edition is 'new' or only a reprint. Much money can be saved by taking the precaution of sending to the publishers. The ethical question as to whether or not postage for reply should be enclosed is one I would not like to give a decision upon. These matters are only remotely concerned with the business of bookbinding; and

so far as they are concerned with it they are dealt with in other chapters.

Novels and juveniles loom largest in this subject of the replacement of stock. Not because they are the largest section, they need not be so ; nor because they are the most used, this does not follow as a *sine qua non* ; but because, as a rule, they are the worst produced of all classes of books and because they are used more by readers who, never having had any training in the use of books, deal most hardly with them. The proverbial rasher of bacon that has been used as a bookmark is never found in such a book as a treatise on electricity (perhaps because the poor student has not sufficient bacon to spare), but in the romantic novel.

The average life of a novel in a public library at the present time would appear to be from two to three years. So that if the stock is to be kept up, a third must be replaced each year. This is seldom done ; but even where an attempt is made to do it, the expense is found to be exceedingly heavy. A common method of meeting the difficulty is to keep lists of books at various booksellers with instructions to supply as second-hand copies are acquired. This course has been rendered still more advisable by the practice of publishers of

remaindering fiction stock. This very soon makes a book o.p. When the second-hand stock is used up, an entirely new edition may find its market among public libraries alone. As I have said elsewhere, the public libraries of this country alone can use an edition of a thousand copies of a book that finds favour in their sight.

The books so purchased very quickly require binding. They should be bound in cheap or other styles according to the suggestions given in Chapter IX. More and more as I study the question of books as they concern librarians on the one side and publishers and bookbinders on the other, I am persuaded that both would benefit immeasurably from a closer union and an absence of that suspicion which has engendered the ill-feeling of past years, and is only now beginning to simmer down. In the regulation of the publication of books suitable for replacement there is ample scope for co-operation.

I think it would be necessary, however, to make use of the organization of the Library Association. One obvious way in which this could be done is in the keeping of a register of o.p. books wanted by libraries. If every librarian could be induced to send notice of all such books it would be possible

for the Association to go to the publisher saying : “ We will take so many hundred copies of such and such a volume. We want it on good paper in library binding. At what price will you issue it ? ”

At the present time, there is sometimes more risk in the issue of a second edition than there is in that of a first, in spite of the fact that if plates have been made the cost is very much less : hence so many libraries have so many books withdrawn, and very little prospect of replacing them because they are out of print.

CHAPTER XII

BOOK REPAIRING

BOOK repairing properly belongs to re-binding. In the business of book-binding, re-binding occupies a very large place, and for that reason book repairing deserves considerable notice, although books are too frequently repaired in libraries when they should be re-bound or withdrawn.

Labelling, although not strictly repairing, requires a few words, particularly as it is not limited to public libraries, or even to libraries in general. Cut or tear waste paper into sheets about the size of an ordinary daily paper folded into four. On the top of a pile of these sheets place from ten to fifty labels, the number varying according to the number of hands engaged in the work. One paster can keep three others engaged putting in the labels. Paste the top label, using a brush sufficiently

Dyeing



large ; fold it in two lightly and place it away. Do the same for each label in the pile. By the time the last is done the first will be sufficiently soaked to prevent bubbles when placed in the book. To do this, take the pasted label by the top right and the bottom left hand corners and place it squarely in position : taking care to rub from the centre to the edges. Throw away the top sheet of the waste and proceed as before.

The most simple repair to execute is the pasting in of loose leaves.

Take the leaf in the left hand and carefully remove all superfluous paste, glue, etc., adhering to the edge. Then apply paste very thinly to the extreme edge. Take the leaf top and bottom in the hands and carefully work it back and fore into the back of the book. If the paper is very poor in quality it may be necessary to press the back of the leaf into position with a bone paper knife. The varying degrees of damage to the leaf necessitate variances in treatment. There are librarians who particularise as to the way in which the paste is applied. To me this has little, if any, significance provided the paste is thinly and evenly spread. The middle finger, a thin piece of wood, or a brush

may be used, or the leaf may be laid flat and covered with another piece of paper until only the extreme edge is visible, and then pasted; or paste may be spread on a slate or sheet of glass and the edge of the leaf touched on to it.

A ragged edge is best cured by slightly cutting away. This will not do if the serrations or torn portions are very bad, otherwise the size of the leaf would be reduced too much. But when the edge is so much jagged that it becomes necessary to cut away a considerable portion of the back, or inner margin of the leaf, the sound portion must be joined to a sound piece of paper. This may be done by splicing, bevelling, or the use of tissue paper. In the case of cheap books, modern fiction and the like, delicate operations are not worth while, and it is advisable to simply paste a strip of paper, slightly thinner but as strong, to the leaf equal in width to the portion cut away, and paste that into the book. Tissue paper can be used with almost any book paper, but the paste must be exceedingly good and the book must not be subjected to very heavy use. The edge of the trimmed leaf and the edge of the paper it is desired to attach to it must be both absolutely true. They must then

be pasted at the extreme edge and drawn together. Tissue must be then placed on both sides in the nature of splints. When dry, the waste tissue must be carefully torn off. Care should be taken to prevent the paste soaking through the tissue. Instead of tissue which is to be removed, transparent paper such as that sold for repairing music is sometimes used, but it is preferable to employ plain transparent paper, and paste it as required, to using gummed paper. This remark as to paste being superior to gum applies to everything connected with book repairs.

Bevelling can only be done in the case of paper with a fairly good substance. Both edges to be joined should be rubbed with *very fine* sandpaper until the paper slopes to the edge at a fairly obtuse angle, when both surfaces should be pasted. There are those who can bevel paper with a knife. When the join is wiped clean and has dried under slight pressure, the repair should be scarcely visible.

Splicing, as a rule, is only used in valuable books, of first-class paper, by competent men. I mention the method here, but as a matter of fact, no amount of description can supply the knowledge to be gained by experience. The paper of the

piece to be attached is split in the centre and the other piece is pasted and inserted. It sounds simple but it is not.

These methods of repairing, although they are described as applied to loose and torn leaves, are just the same when a damaged leaf is in question, or an ordinary torn page. The value of the book must determine the particular method to be employed, whether or not it warrants the expenditure of much time and labour.

Still keeping to the basis of the leaf as apart from the fabric of the book: maps and plates of importance are best mounted on linen, and should be so mounted in the case of important books before, and not after they are torn and damaged.

When the whole of the edges of the leaves of a book are 'gone,' as for instance, when the volume has been long damp and then dried, the method of splicing, or bevelling, will not be applicable. Probably the edges for half an inch or more all round are as brittle as chalk, and although the body of the paper may be 'sound,' it is quite impossible to do anything with it to make it stand the strain of either operation. There are certain chemical solutions which may be used to give body and strength to decayed paper, but personally I think

the mechanical repairs are to be preferred. A weak solution of gum tragacanth applied with a sponge, and the paper then 'ironed' with a hot flat iron over blotting-paper, may be used as a rough and ready method for a book of small value.

To deal with such a book satisfactorily, it is necessary to separate each leaf. Every bit of surplus waste must be removed, such as paste, string, or thread, broken edges, etc. The centre of two sheets of paper for each single leaf must be cut out leaving a space sufficiently large for the print page, and if the paper is sufficiently good, as much of the margin as possible. The leaf of the book must then be placed between the two sheets previously pasted, and gently pressed until dry, care being taken to prevent 'sticking' at the edges. It will thus be seen that an entirely new margin has been provided, and as most of the wear and tear are on this, it follows that the life of the book is prolonged indefinitely.

Suppose, however, that the book is an extremely valuable one, or a few sheets of ancient manuscript have to be repaired, there is no question here of new margins; the paper may be too brittle to handle. Send it to the best repairer you know, with instructions to cover both sides with gauze.

That is the only 'business' way there is of it. Do not attempt to deal with such a case. Even an expert repairer requires to be alone in a room without draughts. It sometimes happens that there is a hole in a leaf. This must be filled in, if large enough, with a piece of paper of suitable kind by splicing, or bevelling, or by simply pasting it down, and the missing print filled in by hand, if necessary. If the hole is small, such as a worm-hole, it can be filled in with pulp—if there are enough of them to make it worth while to obtain a little pulp from a mill—or with paste, or plaster of paris in 'loaded' paper. A piece of metal or glass should be placed behind the leaf when the holes are being filled.

I suppose no other damage can occur to a leaf that has not been dealt with by one or other of the methods of repair already described. We will come now to damage to the binding itself.

In the first place, let me remark that in my opinion it is a mistake to repair or re-bind a book beyond a certain point. One binding in addition to the original binding is about as much as the ordinary book will stand; each subsequent binding or re-sewing will last a shorter time and to that extent is waste of money. It would

be far cheaper to buy a new copy. If the book is not procurable, or so costly as to be prohibitive, it would be advisable to consider withdrawing it from a department where it was receiving such hard and rough usage. Suppose, however, it is desirable to re-bind a book the back of which has been so broken by repeated sewing and backing, etc.—the most simple and effective method, in the case of ordinary as distinct from valuable books, is to shave off the whole of the back sewing with the guillotine, and then either over-sewing the leaves in bunches, or machine them on the straight with an ordinary sewing machine, afterwards treating each bunch as a section.

Where a book is broken away at the back, it is a very great mistake to paste or glue the cloth to the back, although I have seen it advocated, as the temporary gain is less than the permanent damage to the book. If the book is not to be re-bound—the natural course, by the way, is to bind before a book stands in dire need of it—false joints should be pasted over the end papers and new end papers inserted.

If the cloth cover is broken outside, do not sew it, as I have seen done, but paste something beneath the break, pressing down the trimmed edges.

In the case of a leather-bound book, strip the back away and about half an inch or a little more of the side leather. Take a piece of new leather to match as nearly as possible the sides remaining. 'Make-up' or line the back with paper or flesh cuttings of leather, or calf, etc., and then glue down the new back on to the sides. Of course, a book re-backed in this way does not have the appearance of a re-bound book. And as it throws a certain amount of strain on the paper and sewing, it is much better to re-bind the book unless the cost offers an obstacle.

Worn corners and edges may be replaced by much the same methods. The old worn-out pieces must be cut away, or stripped, or cleaned off, and new put on, taking care always to paste or glue the new piece to be put on, and also taking care not to place anything in position immediately it is pasted or glued, otherwise it stretches unevenly. Loose sections may be treated in a variety of ways according to the particular needs of each case. If the section breaks away in publishers' covers it is usually enough to 'catch up' the loose ends of the thread and tie them. If they are too short for this, the loose ends may be frayed out and paste well rubbed

into the cotton, which then adheres to the centre of the inside sheet. Another method is to sew the section and then paste it in, but this is unsatisfactory, almost as unsatisfactory as putting a still greater strain on the section by weighting it with a linen or paper 'guard.' In the case of a hollow-back the section can be sewn direct to the back fabric by manipulating the needle down the back.

The only remaining points to be dealt with are the removal of stains and discolourations and the treatment of leather by feeding it.

I will take the last first and deal with the feeding of leather. To illustrate the effect of this feeding method, I may refer to a set of the *Encyclopædia Britannica* bound in the quires in heavy hogskin, unfortunately not acid-free. After being in use for about eight years the leather had apparently perished, rubbing off in red powder in the way so familiar to librarians before the more general use of leathers free from mineral acids. The books were removed from the gas-lighted room in which they had been in use and were transferred to another illuminated by electric light. This, of course, removed all of the contributory causes of the decay, but the past effect

was still present in the leather. To arrest this, each of the covers was liberally treated with oil—ordinary boiled oil. This was done twice in one year; once in each of the two following years; and since then, once in each two years with Molliscorum. It is now eight years since the first application, and the bindings then regarded as perished are still in constant daily use and look better now than they did then, with apparently many years' wear in them still.* Lending library books treated in the same way—rubbed with a flannel or duster soaked in oil—have a better appearance and last much longer. It is not to leather alone that this applies, but also to many kinds of cloth.

The great difficulty experienced in the use of oil or Molliscorum is found in the colour of the binding material: obviously, it is inadvisable to use a dark oil on a light book. There are some colours on which it is almost impossible to use oil; but in libraries of all kinds these are rather few in number. Most colours can be treated with the finer oils, and the gradual drying of the oil, together with its soaking farther in, eventually restore the colour. It has been seriously suggested that furniture polish—

* This was first written before the publication of the new edition.

using a term covering perhaps some hundreds of preparations—is a good thing to use for the restoration of leather. No doubt some polishes have a temporary effect, as they are mainly composed of oil or beeswax, but the other, and sometimes unknown ingredients, make the risk in using such preparations too great. In the case of leather-bound books in constant use, there is no need to resort to this artificial ‘feeding.’

No hard and fast rule, or universal cure-all, can be applied to the removal of stains or discolourations. So much depends upon the stain and its cause, and the material upon which the stain is found. The nearest approach to ‘universal remedies’ are heat, time, and alcohol and varnish.

The first can be used in most cases for removing grease stains of all kinds, and stains from liquids which evaporate without leaving permanent marks. To remove slight grease stains, and stains from mineral oils, a hot iron may be applied over tissue paper—unglazed—in one, two, or three layers, according to the material. The heat of the iron should be regulated by the nature of the material, a fine leather requiring more careful treatment than, say, a hard surface paper. Where the grease is more pronounced, good blotting-paper is better

when a longer application of the flat iron is necessary. But in no case should the iron be hot enough to scorch the material or paper. If the grease is thick enough to scrape off, scrape it or it will run when heated.

Alcohol will be found effective in the removal of varnish—bookbinders' varnish, of course—superfluous gilding, and most foreign surface additions of the classes represented by varnish and size, from cloth and leather: and the most convenient form to use it in is as spirits of wine. When lettering and numbering books, the gilding on highly decorated books may be removed in this way, to make room for the letter and number.

Varnish or glair may be used to restore the glaze to cloth and leather. It is not, as a rule, worth bothering about books in the lending library, when their pristine gloss is wearing off; but it is in some cases here, and in most cases in the reference libraries and in libraries not of a public character. Water is the most disastrous enemy of books in this way, and to illustrate the treatment, we will suppose a book carried through the rain without protection. First, soak up all superfluous wet with a soft cloth free from fluff, dabbing only, not

rubbing. Then it becomes necessary to look at the material of the book. If the book is printed on paper heavily coated with china clay it may not be possible or advisable to do anything with it but to discard it entirely. Otherwise, spray the leaves open to dry. When dry or nearly so, put the volume in a press to remove the cockles and creases that will almost certainly have followed the wetting. When pressed and quite dry, steps must be taken to restore the general appearance of the book. Damage to a leather cover, if slight, can be made good with an application of glair, or even oil may be sufficient; on the other hand it may be necessary to varnish the whole cover. Cloth, if shiny, may be restored by the same means. If the cloth on a half-bound book has been loosened, carefully glue down *when dry*. If the edges of the leaves have been stained, it is best to rub them down with very fine sandpaper, taking care to press the body of the book tightly, otherwise the leaves will be left with a distinct 'burr.' The use of glair for permanently restoring the gloss on cloth or leather is not very successful.

Now with regard to ink stains and foxing and those numerous other marks often seen in books.

Book cleaning, as this part of the work may be described, is difficult and, in so far as it shows very little result for a great deal of labour, is a thankless task. Bleaching is fraught with great danger to the permanent preservation of the book, and the extensive use of lime or chlorine should be avoided. Many stains may be removed by immersing the paper in a bath of hot water with a little alum dissolved in it.

Before washing, strip the book of its binding and separate the sections. If it is not advisable or necessary to wash the leaves they may be sized with advantage. In any case, however, the greatest possible care must be exercised in handling the paper while it is wet. Photographic porcelain dishes are best for ordinary work. If these cannot be obtained large enough for the work in hand, it would be as well to consider the advisability of giving the work to a professional, as the larger the sheets the more difficult the work will prove for the amateur binder.

Much so-called stain is simply the result of dust. First attempt to remove this with very soft rubber—pressed wheat rubber is perhaps the best for this purpose—or bread. With rubber, rub away from the point of pressure, but use bread with a

circular motion. If the dirt is on the surface only, but cannot be removed in this way, fine sandpaper may be used, but with the greatest care. When using bread, take a piece of bread, not hard, but dry, and brush away the crumbs as they gather.

The removal of finger-marks depends altogether upon what was on the fingers when the marks were made. Rubber and bread crumbs should be tried first. If greasy, use the remedy recommended for grease stains; if blood-marked, apply the remedy recommended, and so on. Finger-marks that are the result of natural human oils may be removed by the use of curd soap, softened to a jelly with water, and laid on the marks. Leave the jelly on the paper a longer or shorter time according to the nature of the finger-marks, then place the leaf in cold water and brush off with a soft brush. Rinse quickly in (1) weak alum water, then (2) clean cold water; dry and then size.

Damp is perhaps the next form of damage most frequently met with in books. A book must be of some considerable value before it is worth while treating it after it has been thoroughly damaged in this way. There are several ways of dealing

with leaves thus damaged, of which I give the two following. It must be explained that I am not here referring to stains made by water, which will be dealt with shortly, but with the results of dampness that have been accumulating until the whole book is affected. If there are stains they can be treated as for water stains. (1) Each leaf may be re-sized by immersing in the size bath, or, if the paper has become too fragile for that, the size may be applied very gently with a soft brush, one side of the leaf being allowed to dry before the other is touched. (2) Both sides of each leaf may be covered with transparent paper. In all except modern books it is usually sufficient to remove the affected books to a dry room with a good air current. After a few weeks most books will lose the appearance of damp. Contrary to a very general idea, damp, or moisture in the air, rarely effects paper. When it does, it is usually round the letters on the print page.

From the effect of damp we come naturally to water stains. The effect of water can be generally but not always recognised by the sharpness with which the stain stops. To remove water stains, place the leaves in a hot solution of alum water for some



Finishing

WORKED FORWARDS OR BACKWARDS UNDER A FLAT BOARD
COVERED WITH CORK.

hours—the amount of alum and the length of time to be determined by the depth of the stain and the nature of the paper. Pour off the solution and wash out with warm water. Press the leaves or sections, open them and hang up to dry. Size them, then press and dry again before re-binding.

Foxing is generally the result of damp. The stains or fox-marks may be removed by (1) passing the leaves through a hot bath of hydrochloric acid, in the proportion of half an ounce of acid to a pint of water. (2) By placing the leaves in a weak solution of chlorine water before immersion in the hydrochloric bath. Rinse with cold water, dry and size.

Mud, according to its constituents, may be removed with ease or difficulty. Try simple remedies first, such as indiarubber, bread, etc. (A little glair, oil, or varnish will generally be found sufficient to hide the slight stain that may remain on the covers of books for ordinary use.) If the stains are recent, spray a little water over them with a rose-jet glass syringe. If this is not likely to be sufficient, wash the leaf in cold water. The following remedies are increasingly drastic: Wash in a weak solution of muriatic or hydrochloric acid;

in a solution of chloride of lime ; with soap solution, or lather, applied with a soft brush. In each case rinse well with cold water, dry by hanging on lines, and size if necessary when dry.

In a private library ink stains are more frequently met with, while in a public library grease of all kinds is much more common. The usual method of removing grease or fat from both paper and the binding of books is by the application of heat. Where the fat is thick it should be removed as far as possible with a knife, otherwise it is liable to spread more quickly than it can be absorbed, and frequently, particularly in cold weather, it will be found to have set without staining. Having scraped off superfluous fat, place pieces of very absorbent blotting paper on both sides of the stained paper and press with a hot iron, or a bottle filled with boiling water. Several sheets of absorbent tissue, or even a piece of flannel, may be used instead of the blotting paper. Pipeclay or chalk (French chalk), or anything similar, may be sprinkled over the grease spots before the heat is applied. The soap application given under finger-marks may be resorted to if heat does not produce the desired result. Spirits of wine, benzine,

benzoline, or ether may be used. They should not be applied directly to the paper, but through blotting paper, soft tissue, etc., etc.

Ink stains are naturally very common, more particularly in the books of a private library, and in those of public reference libraries where the use of ink is permitted. The quality of ink varies, so also does the quality of paper, and the treatment must therefore be varied accordingly. With some inks on certain papers it is occasionally possible to remove the mark most effectively with rubber, bread or sandpaper. Where this is not effective, other remedies may be resorted to. One of the most common, but not on that account to be most recommended, is lemon juice dabbed on to the stain and then soaked off. This, however, often leaves bad effects. While the ink is perfectly fresh and wet, milk will often be sufficient to remove the stain. Moistened cream of tartar gently rubbed over the stain, if fresh although dry, will also prove effective in most cases. If, however, the stains are dry and old, a solution, stronger or weaker according to the condition of the stains, of oxalic acid may be applied, to be followed by the application of a weak solution of chloride

of lime. This is that remedy usually sold in two bottles under various names. It is more satisfactory to treat the whole leaf rather than small spots; afterwards passing it through warm water, drying, and then sizing. Very obstinate stains may be treated with protochloride of tin before the application of the oxalic acid.

Indian ink may be removed, as a rule, by wetting the blot or stain with water; dry off with blotting paper, and rub gently with indiarubber or wheat rubber.

Marking ink may be removed by either separately or both together of tincture of iodine or cyanide of potassium. A weak solution of the former is followed by the application of a weak solution of the latter, repeated several times if necessary, washed, dried and sized. The cyanide of potassium is a dangerous poison. Benzine will often remove the ink used with rubber stamps, although certain of these "pad" inks cannot be removed without leaving traces behind.

Most wine stains can be removed by water and chloride of lime.

Jam stains require treatment according to the fruit of which the jam was made. Water, followed by a solution of ammonia, may be tried. But first try soap as follows:

Dissolve a small quantity of carbonate of soda in a little water, in which wet a camel hair brush, then rub the brush on soap and apply to the stain, wash in cold water and then size.

Tea and coffee stains are not very easily removed. Tea stains may be attacked with soap lather, Javelle water, or chlorine water, or a solution of tartaric acid may be used.

Coffee stains may be first tried with steam after they have dried, although, frequently, washing alone will remove the stains. Glycerine and ammonia are the agents to be used in obstinate cases, but they must be used in stronger or weaker solutions as required.

It is perhaps needless to say that in the case of clay-loaded art paper soaking and washing are out of the question.

Blood stains are not often found in any quantity; usually in smears, but it is always best to treat the whole leaf rather than attempt to remove the stain by treating a portion of the leaf while in the book. Therefore take out the leaf and wash in cold water and apply the soap solution recommended for the removal of jam stains.

Paint or varnish may, as a rule, be removed in the same way as grease. While most

varnish or resin stains, and sealing wax may be removed by methylated spirit after warming.

Mildew may be brushed off, and the remedies proposed for damp applied.

Creases and dents and the furrows made by pencil marks may be removed by (1) rubbing on both sides of the paper with something hard, smooth, and slightly rounded; (2) by pressing between two pieces of damp blotting paper; (3) by soaking, pressing, drying and sizing.

Faded writing may be revived or developed by brushing with a weak solution of sulphocyanide of potassium, and, before the paper becomes dry, holding in the steam of hot muriatic acid. If the writing has been effaced by sea water, wash the paper in warm water and soak in a solution of gallic acid. For faded manuscripts wash with tannin solution.

At one time it was thought that vellum or parchment and other manuscripts were best preserved by keeping in airtight frames, but it is now generally agreed that the air, if dry, preserves, rather than injures them. If, however, it is desired to apply a preservative, a mixture of sterine 2 and collodion 98 may be applied with a brush, with the paper, etc., laid on a flat surface. Allow half an hour to dry.

A few other directions regarding eventualities sometimes met with may fitly conclude this chapter.

Insects — of which there are many varieties inimical to books—are not often found in books that are regularly dusted and sometimes handled, properly ventilated and open to light. Where these conditions do not exist, attention should be given to the bookcases, which should be sound and of good seasoned wood. The paste used in the books is generally considered to be the attraction to most book insects, and one of the deterrents used in paste is alum. This is not always sufficient, however. Resin also is employed, but one of the best ingredients to use is oil of turpentine. The best, however, is said to be the addition of a little sugar and corrosive sublimate with a very few drops of oil to the paste in the making.

It is sometimes desirable to render paper waterproof and incombustible. Waterproofing may be done by soaking it in a solution made of borax 1 part, powdered shellac 3 parts, to 22 parts of water. The shellac is added while the borax and water are boiling.

Paper may be rendered impervious to fire, to a large extent at least, by treating with strong alum water,

CHAPTER XIII

LEATHER AND ITS PRODUCTION

BY PROF. H. R. PROCTER, F.I.C.,
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THE skins of animals have been used for clothing from very early times, and some way must therefore have been known of converting them into leather, and so preserving them from decay. At first no doubt skins were generally prepared with the hair or wool upon them, as furs and wool mats still are, but for most purposes in these days, the first step in the production of leather is to remove the hair, which is generally done by soaking the skins for a week or more in a mixture of caustic lime and water. The natural living skin consists of two layers, the inner or true skin, which has nerves and blood-vessels, and which bleeds and hurts when

it is cut, and the thin outer or scarf skin, which has neither of these, and which consequently feels nothing. On the palm of the hand, for example, where the scarf-skin is pretty thick, it is easy to pass a needle through it without producing any pain. The hairs, which have bulbs like little onions, are planted in the true skin, but the scarf-skin passes down underneath them and lines the holes; and as it is softened and dissolved by the lime, the hair is easily scraped off with a blunt two-handled knife. This is done by the tanner on a sloping "beam" of a rounded form, and on it the fat and loose flesh is also cut and scraped off the inner or flesh side of the skin with a sharp tool. After washing in water, the heavier hides of cows and oxen are ready to be tanned, but lighter hides and skins, and especially those for very fine and soft leathers, such as morocco and kid, require a further treatment to free them more completely from the lime and natural grease, and portions of the scarf-skin and hair roots which still remain. This consists in soaking in a solution of dogs' or pigeons' dung, which, however, is both unpleasant and dangerous to the skins, and is being gradually superseded by more scientific methods. After this the

skins are again worked and stretched with the knife over the beam, and are also frequently soaked in fermenting bran and water, which has a further cleansing effect. In this stage the skins are soft, clean, and white, but would still easily putrefy if left wet, and if dried would become almost like a piece of horn or parchment. They are now, however, ready for the tanning, which will change all this and make them into durable and pliable leather.

This is done by soaking in infusions of barks and other astringent vegetable matters which have a harsh, rough taste, like that of strong tea which has stood long on the leaves. This astringency is caused by the presence of matters called tannins, which will tan skin and other gelatinous animal membranes, and which are consequently useful in making leather, but very injurious to the stomach. One of the oldest and most important tanning materials is the bark of the oak tree. The acorns of an evergreen oak which grows in the Levant and in Greece also contain much tannin (quite three times as much as oak bark) : these are much used for tanning thick leather for the soles of boots, and are called Valonia. The inner bark of the cork-oak is also a valuable tanning material. Among

other barks may be mentioned those of the larch, of the American hemlock pine, and of the Australian mimosa or wattle. The leaves of the sumach bush from Sicily are greatly used in tanning fine and soft leathers; and the bean-like pods of *Dividivi*, and *Algarobill* from South America, and the hard-dried Indian fruits called *Myorbalams* are also very rich in tannin. Several woods, such as the oak and chestnut in Europe, the *quebracho* in Brazil, and the cutch acacia in India, yield tans which are principally used in the form of extracts, which are made by soaking the rasped woods in water, and boiling down the infusions so obtained until they are as thick as treacle or quite solid. A very important extract called gambier or *terra japonica* is thus made in the East Indies from the leaves and twigs of a shrub. This comes in small, hard cubes or in pasty blocks wrapped up in matting. It tans very quickly, but makes rather spongy leather.

When the hides and skins have been rendered soft, clean, and white, as before described, they are at first kept moving about in weak liquors made with one or more of these tanning materials, and are afterwards laid flat in stronger liquors in

deep pits, and generally with some of the solid ground material dusted in between them to keep the skins apart and maintain the strength of the liquor. The skins become yellow or brown, and are gradually converted into leather, the gelatine of the skin absorbing the tannin out of the liquors, which have, therefore, to be frequently strengthened or renewed. Some thin skins can be tanned in a day or two, but the thickest and best sole-leather still takes twelve months before it is thoroughly penetrated and solid. An interesting way of tanning thin skins for morocco consists in sewing them up into bags or bottles, like those used by the ancients for wine and water, and still to be seen in use in Eastern Countries. These are filled with sumach liquor, and floated in the same, and at intervals are piled up in heaps, when their weight soon squeezes the tanning liquor through the skin. Tanning is much quickened by keeping the skins moving in the liquors, and for this purpose they are often placed in vats with paddle-wheels, something like those of a steamer, or in large revolving drums like enormous churns.

When completely tanned the thick heavy hides intended for soles of boots are hung up in drying rooms, generally with windows

fitted with louvre boards like venetian blinds, until about half-dry; and are then smoothed out under a machine, or with a steel tool called a 'striking pin,' and rolled under a heavy brass roller, to make them as solid and firm as possible, and are finally dried in a warm room. Leathers which are intended for straps and harness, and the thinner hides and calfskins for the upper parts of boots and many other purposes, are well scoured before drying, with brushes, stones, and a steel tool called a 'sleeker,' and are then daubed over with a mixture of fish oil and tallow, which is called 'dubbing,' and dried in a warm room. The grease is now often applied in a 'drum' similar to that used in tanning. As the water dries out, the oil is drawn into the leather to take its place, and renders it soft and waterproof. Leather which is intended for boots is then generally blacked. This treatment is called 'currying,' and is frequently not performed by the tanner, but by the currier, who buys the rough dried leather, and again wets it before scouring and currying.

Another sort of tanned leather is what is called 'patent,' 'enamelled,' or 'japanned.' The bright shiny surface of this leather is produced by stretching the

leather on boards which will slide into stoves heated by steam pipes, and giving it a number of coatings of a sort of varnish made with linseed oil and Prussian blue, of which one coat must be thoroughly dry before the next is laid on. The rooms in which this is done are generally so hot that the men have to work stripped to the waist.

Sheep, goat and seal skins which are intended for coloured leathers are usually rough-dried after tanning, for purposes of storing, and when required for finishing are soaked in water and well scoured out with a brass sleeker on a table. They are then dyed the required colour by turning over in a tray filled with the dye-liquor, which for the brighter colours is generally a solution of coal-tar dyes. After dyeing they are stretched and smoothed, or, as it is called, 'struck out' with the sleeker, and are nailed on boards in a warm room to make them dry smooth. When dry, they are again slightly damped, and laid on a table, and one edge of the skin is doubled over, and the fold worked and rubbed forwards or backwards under a flat board covered with cork, so that every part of the skin is creased and flattened out again. This process raises the grain of the skin

and produces the rough surface which is so much admired in moroccos. To give a polish to the leather it is rubbed under a machine with a round piece of glass, agate, or hard wood. This glazes and flattens down the grain, but it is easily raised again by a repetition of the boarding, which is called 'springing up.'

The soft sheep-skin morocco called 'paste-grain,' which is much used for pocket-books, albums, and such like, is made in a very ingenious way. The skins in the soft limed condition before tanning, are put through a 'splitting machine,' in which they are drawn against a long, sharp knife-blade, which is driven rapidly back and forward, like the cutting blade of a reaping machine, and which cuts them into two thicknesses. Of these, the inner, or 'lining,' is made into wash-leather, while the outer one is tanned, and called a split or 'skiver.' This is too thin to take a handsome grain in the ordinary way, and is, therefore, pasted over on the back with thin glue, which, as it dries and shrinks, draws up the skin, and forms a grain which is easily raised by boarding in the usual way. Artificial grain is also often formed by passing the leather through a powerful roller press like a wringing machine,

in which the top roller is engraved like the grain it is desired to imitate, or covered with an electrotype taken from an actual skin. In the latter case the imitation is often so exact as, when made up into goods, to deceive even the experienced.

Wash-leather or 'chamois leather' is treated in an entirely different way to tanned leather. After liming and splitting, instead of being tanned, it is put into a machine called 'stocks,' where it is kneaded with fish oil, under powerful hammers, till quite saturated, when it is thrown into heaps, where it soon becomes very hot from a sort of fermentation, taking a yellow colour, and giving off a very pungent smell, resembling that of mustard. The superfluous oil is then washed out with soda, and the skin, after drying, is ready for use, and forms the well-known and very useful wash-leather, so-called because it will bear hot water without injury.

White leather, which is used for whip lashes, laces, and for capping medicine bottles, is tanned or 'tawed' with a mixture of alum and salt; and the 'kid' of which gloves and thin boots are made is prepared in much the same way, but with the addition of flour and egg-yolks to the mixture, to give softness and fulness. Im-

mense numbers of eggs are used for this purpose, and though very expensive, nothing has yet been found completely to take their place. The dyeing of kid-leather is either done by brushing on the colour on a table with a smooth zinc top, which is washed after every skin, to keep the flesh side clean, or by dipping in the dye tray.

These are some of the processes by which leather is made; its manufacture is one of the most ancient of arts, and is an extraordinary instance of the perfection of great complexity to which processes may be brought by long ages of trial and experience, even in the absence of much scientific knowledge.

In recent times, however, scientific knowledge has been applied in the leather trade with considerable success, and has resulted in several quite novel methods of manufacture. One of the most important of these new departures is the use of salts of chromium as tanning agents. These were first successfully employed by an American chemist, Mr. A. Schultz, though the idea was originated some fifty years since by the now venerable Professor Knapp. Schultz's process depended on first treating the skins in a yellow solution of chromic acid which the skins absorbed without

becoming tanned. They were next placed in a bath of dilute solution of hyposulphite of soda, which reduced the chromium in the skins to a green oxide which affected the tannage. This method is still in use, though it is partially superseded by others more direct. Chrome leather is now much used for the finer sorts of shoe-wear, for which it is very valuable from its softness and toughness and resistance to heat and moisture.

Another modern sort of leather is produced by the action of formaldehyde, a volatile liquid produced from methyl-alcohol, by which the hide is converted into leather practically if not chemically identical with the bleached buff leathers used for military accoutrements, while finer skins yield beautiful glove leathers which dye readily in all shades.

Great improvements have also been made in the details of the older processes by the introduction of exacter and more scientific modes of control.

CHAPTER XIV

BOOK CLOTH AND ITS MANUFACTURE : ITS USES AND TESTS

IT is not proposed to take 'sides' in the discussion of the relative merits of leather and cloth, and as far as possible no comparison will be made between the two. Before dealing with book cloth alone, however, it is necessary to say something regarding the tests applied to both leather and cloth.

A test to be of any value should bear some relation to the use the article is to have; and it is almost a truism to say that the closer this relationship is, so much the more valuable will the result of the test become. From this standpoint I have no hesitation in saying that the usual textile and tensile strength tests of both leather and cloth are of little, if of any, value. In the first place, under modern conditions of binding there is no appreciable strain on the material at any point; in other

words, bookbinding materials are subjected to attrition, as rubbing is grandiloquently termed, and cracking at the joints through constant opening and closing. If a book were held up by the boards, or by a single board, there would be no undue strain on the outer covering, if the binding has been done in what we have called library style. And I am not concerned at present with publishers' case work.

In the second place, the common method of applying even these worthless tests is too casual or haphazard to have any scientific value. This method may be briefly described as hanging a small piece of material on a spring balance, by a circular hole cut on the upper portion, and pulling it! Now, the objections to this include the following: the human element in pulling is too variable, the strain being liable to jerks light or great, to pulling out of the 'square,' to making two pulls at the same piece, and other fallibilities; the hole may not be always a perfect circle; fine materials have a greater quantity of fibres or strands in proportion to the size of the hole and its distance from the edge of the piece of material than is the case with coarse cloth or leather. Perhaps I have said enough to show the fallacy of

these tests. But to illustrate it in a homely way I would compare an Indian straw mat and a Brussels carpet. The former, if held by a small hole on a nail, will almost break away with its own weight, while the other is sometimes untearable, yet the wear of the mat under suitable conditions is almost endless. Compare again linoleum and carpet. The former will crack in short lengths if bent over, while the latter will roll or fold without apparent injury; yet the linoleum—quality for quality—will sustain more wear than the carpet. Can anything stronger be said about testing material for a strain it will never be subjected to?

This, if it is accepted, invalidates the great claim made on behalf of the cloth or buckram manufactured in America to the specification of the United States Government.

The two great tests, or in other words, the great qualities to be sought for are resistance to friction and folding or bending, and invulnerability to climatic and other destructive forces.

Not only is the textile test of no value to us, but in attempting to realize conditions that will satisfy the test, other qualities in the cloth and leather are sacrificed. Let me give an instance. Cloth, having a

resistance to satisfy the U.S. Government specification when treated as Winvis cloth, loses some of this resistance to a strain never imposed upon it, although it acquires other properties of infinitely greater value, such as becoming waterproof, immune to the attack of insects, and deterioration due to climate.

Before going on with the general subject of book cloth, I will crystallize this, I believe, the first attempt to oppose the fetish of 'tensile tests,' by saying that tests to be of value must bear relation to the use of the material, and that the so-called tensile and textile tests, and specifications founded on them, fail in this respect.

The manufacture of cloth for bookbinding differs very little from the manufacture of other cotton and linen cloths; and this process bears a close family resemblance to the processes of the manufacture of paper. In weaving linen, as distinct from calico, great care is necessary to free the yarn from irregularities common to linen fabrics.

As in the case with ordinary cotton fabrics, the bookbinders' cloth has to be bleached and then dyed. The dyeing process, however, is a special one, as it is necessary to produce a great density of

colour; the chemical reactions of which this is the result have to be varied according to the colour required. Following the dyeing is the 'filling' process, in which, as the term implies, by repeated operations the cloth is 'filled' with starch, flour, etc. Finally the cloth is calendered: this is done by means of a series of rollers—steel cylinders, steam-heated, alternating with soft rollers, in much the same way that starched goods are ironed.

After this the cloth is embossed if it is destined to carry a pattern such as a morocco grain.

The cloth described so far is, or may be, according to quality, fast to sunlight: that is, it will not fade. But this is not all that is understood by 'fast finish.' Following the cloths made to the specification of the United States Government, it is necessary to point out the use of this term 'fast colours.' This specification covers only 'fast to sunlight': conformity with the specification makes it impossible, under present known chemical conditions, to produce a cloth capable of resisting moisture. Fast finish as used in this country, however, means fast to sunlight and to moisture; in fact, fast as the draper or cloth merchant has understood the term since it was used.

The rejection by the U.S. Government of cloth dyed otherwise than according to their specification has been generally understood to be due to climatic and other conditions which were supposed to be unfavourable; but tests described in 'The British and Colonial Printer and Stationer' show that this is not so, and that Winvis cloth resisted insect tests where other cloths suffered severely.

This 'fast finish' is a process patented by the Winterbottom Company.

There is no doubt that the specification standard of the U.S. Government is chemically perfect, and the cloth as made to it in America and this country, and possibly in Canada too, where 'duck'—a form of the same cloth—has been in use for years, is an admirable material, but the price is high and the colours are not fast. Against these objections must be placed the enormous strength and the 'fine art' appearance. But I am not yet done with the 'fast finish' cloth. The cloth destined to have the 'fast finish' imparted to it is specially prepared for the colouring matter and finish before the dyeing process takes place. Curiously enough, cloth treated in this way has an increased tensile strength of about 14% over similar cloth not so treated.

I say ‘curiously enough,’ because some dyeing processes, which I will deal with presently, have an injurious effect upon the fabric. The process adds an infinitesimal amount to the cost of the material, roughly summarised as a farthing a yard or ninepence a piece : what this works out at per book it is impossible to say, but if you measure the size of the cloth side of a half-bound book, and calculate that a yard of cloth is a yard and a half wide, you will obtain some idea of the microscopic nature of the additional cost. Most binders—library binders of recognized standard—use a cloth that has a fast finish, unless otherwise instructed. But publishers, as I have already said, are serious offenders in the way of cloth bindings. I recently examined some twenty volumes, most of them 10/6 and over in price, and none less than 6/- net : of this number only one was of a fast colour. Whatever the general public may desire or remain satisfied with, something more is, not due to them perhaps, but at least desired by libraries of all kinds. Most of the colours of these volumes come off quite readily with the moisture of the hands.

Having shown the small cost attached to the fast colour, there is no room for doubt

that the blame for the use of any other inferior make of cloth rests with the publisher as a genus.

‘Extra colours’ is a third class of book cloth differing altogether from the two already described, and bearing a resemblance, at least in the dyeing, to art fabrics, to be described later.

In these ‘extra colours,’ as they are known in the trade, the colouring matter is deposited on the surface of the cloth by mechanical means. The result is a colour surface exceedingly brilliant and much more attractive from the sellers’ point of view than the other classes in which it is almost impossible to obtain the same density and brilliance. From a practical standpoint, it may be said that these cloths—‘extra colours’—are generally stronger than the commoner kinds of book cloth, not on account of the colours, but because this method of colouring can be applied only to cloth of better quality. From a business standpoint this may be said to represent an addition to the cost of from a penny to a penny-halfpenny a yard.

I have now come to the last book cloth product, already referred to *en passant*, viz., art fabrics, as the latest linen cloth is termed in this country. This is in the same class as

those cloths made in conformity with the U.S. Government specification, the legal buckrams and the library buckrams. Art buckram is made entirely of pure linen. It must be understood that I am here referring to the material put upon the market by the Winterbottom Book Cloth Manufacturing Company. And to obviate any unfair criticism I may say that I have taken this Company and its work as a standard, because it is the largest bookbinders' cloth maker in the world, and has the longest experience, and the greatest range; and perhaps, more than for any other reason, because I have had the pleasure of closely following the experiments of the firm in obtaining perfect specimens of this art buckram specially designed for large and heavy books and library bindings. The tensile strength is said to be higher than that demanded by the specification referred to and greater than that of any cotton material. Tensile strength, as I have already pointed out, is not of the utmost importance. But its resistance to wear is phenomenal, and it is said to be unaffected by atmospheric changes. It is almost untearable. While it will not take an emboss in the way that the cloths already described will, it is

much more 'kind' in the working, and has a more artistic surface when finished. The price of art buckram is somewhat higher, as would be expected from the nature of the material, and is round about $1/3\frac{1}{2}$ per yard of a yard wide. I need not perhaps add that this linen art buckram cannot be made with a fast finish.

I have only just touched upon the deleterious effects certain processes have upon cloth fibres. As I have already mentioned, hardening the surface has a tendency to reduce the tensile strength. Whether the result of these processes has a greater value than the lost strength is a matter of opinion in each individual case. I have no doubt that in many cases it is; c.f. that already referred to. A hard surface is of greater importance than tensile strength. What, after all, is bookbinding, except protecting the leaves of a book by the addition of surfaces of increasing hardness? There is, however, in addition to calendering, embossing, etc., one stage of the manufacture of certain cloths having lasting effects upon the wear of the material: I refer to the dyeing of certain colours. I have seen a comparison made semi-publicly between two makes of cloth, one light in colour, the other black: the com-

parison was to the disadvantage of the latter. Blacks, dark greens, dark purples, and chocolates and some other dark colours undergo severe chemical reactions with the agency of nitric acid : with the result that they may suffer in the process.

This is only on a par with a known factor in leather dyeing. And it is generally realized in leather bindings that such colours are to be avoided—and are, in fact, not to be obtained—in acid-free leathers.

There are other points of view from which bookbinders' cloth must be regarded, viz., resistance to moisture, heat and insects ; and to the solutions and methods of disinfection. No book will stand a complete soaking without suffering great damage, but 'fast finish' cloths resist rain and the damp cloth of cleansing properties ; and I have already dealt in the chapter on repairing with the necessary treatment of damp stains. In the same way, excessive heat will calcine any book fabrics. Ordinary heat can be combated in its effects by replacing the natural oil or moisture of the material. Various methods of dealing with insects whose unrestrained ravages have done irreparable damage in some tropical countries have been pro-

pounded : these have been referred to in Chapter XII. We then come to disinfection. Fortunately, although books carry germs in large quantities, they do not readily communicate them ; and in cases of diseases, such as scarlet fever and small-pox, one would suppose that books are invariably destroyed. It is because books so seldom carry infection that ineffective methods of disinfection are successful. Sterilising by steam, is, I suppose, the only perfect method of disinfection, and this is destructive of most books and bindings ; but experiments conducted by Professor Sir R. Boyce, of the School of Pathology, University of Liverpool, show that cloth treated as 'Winvis' cloth resisted the action of steam disinfecting.

CHAPTER XV

THE WORK OF A LIBRARY BINDERY

LIBRARY bookbinding has become during the past 25 years a specially organized department of the craft of bookbinding. It will therefore be interesting to the librarian and all concerned with public libraries to have an account of the methods and organization in use in an up-to-date bindery which is devoted almost exclusively to library work. We are indebted to Messrs. B. Riley & Co., Ltd., of Huddersfield and London, for allowing us to describe how they deal in their workshop with a batch of library books, from the arrival of the books to their return to the customer.

Each consignment on its arrival at the works is entered in an 'Arrivals Book,' with the date of arrival specified, so that each batch of work can be passed on for binding in its proper turn. When this 'turn' arrives, the batch of books, having been unpacked, is carefully checked by a

clerk, with the librarian's list. If no list is sent with the books, then a list is made and a copy sent to the librarian for confirmation and checking. Having checked the books with the list, the clerk proceeds to enter into a special 'Binding Book' the title of every single book and magazine volume, specifying style of binding, colour of leather (or cloth), catalogue number and press mark, and any other particulars essential. In the case of magazines, careful examination is given so as to find out if there are missing parts or title pages. Wherever possible, missing parts are obtained unless the librarian sends instructions to the contrary.

The batch, having been entered, a distinctive mark is made on each book so as to indicate style of binding and library, and they are then passed forward to the forewoman in the women's department. The books are here pulled to pieces preparatory to being mended and 'made ready' for sewing. At this stage the books are collated, examined and placed in four divisions :—

- 1st. Books which are found to be incomplete are placed on one side to be returned unbound or completed if possible.

- 2nd. Careful examination is made to select all books with thick and spongy paper for special treatment.
- 3rd. Books which consist of thin or brittle paper.
- 4th. Such books as are too bad to mend and sew in sections, and require to be specially oversewn.

The bulk of modern fiction—about 70%—falls in division 2, namely books of thick or spongy paper. In dealing with this class of paper (the despair of both librarians and binders), Messrs. Riley have introduced the method of lining every section of all books with such paper down the middle of the fold with fine, smooth linen. The great advantage of this method will at once be obvious, when it is remembered that with books made of soft spongy paper, the mere opening of the book, if the least tension is exerted, or if the thumbs rest on opposite pages, is often quite sufficient to detach the leaves one from another. In many cases the chafing of the thread in the fold will separate the leaves. By the use of the linen guard down the middle opening of each section, where the thread lies and also passes through, not only are the two leaves in each section where the

tension is greatest completely protected, but by means of the linen guard it is quite impossible for the thread to cut the first leaves, and all the other leaves in each section are thereby protected. As already stated, it is found that about 70⁰/₀ of fiction can be treated in this way. The result should be a considerable saving by greatly lengthening the life of the book. Other binders endeavour to meet the difficulty in other ways.

When the books have received the linen guard down each section, and when all torn leaves have been mended and all plates, title pages, and loose leaves have been mounted on separate linen hinges, they are stacked in piles to be dried by an electric fan, preparatory to pressing. When dry, each book is nipped at the back by a special machine so as to reduce any undue swelling caused by mending and linen linings, and transferred to powerful standing presses where the whole batch remains overnight, subject to many tons of pressure.

On being taken out of the presses the books are again collated, and supplied at the back and front with the special double end papers with cloth or linen joints. These are prepared in advance in large quantities. From the collator, the book

are distributed to the sewers, who sew the books in batches of about twelve; each book, unless very small, being sewn on at least five tapes, and in all cases through the tapes.

From the sewers the books are passed into the forwarding department, where a staff of experienced and specially trained workmen take the books in hand. The first operation is technically designated 'glueing up.' This is done by taking from six to ten books at a time, carefully 'knocking up' the sections of each book at the back, and conveying a coating of specially prepared flexible glue along the back of each book, so as to make sure that the dividing space between each of the sections forming the book is completely filled in by the running course of glue. The books are now piled up one on the other with the backs outwards to enable the glue to dry and set. When the glue is sufficiently dry—but not too dry—the books are sent to the guillotine machines for edge trimming. This is done by carefully sorting books into sizes, and cutting together books which are exactly the same in size—the edges being trimmed as slightly as possible. From the cutting machines they are taken to the forwarders for 'rounding' and 'backing.'

The backing is an important operation, and upon it depends very largely the closeness and regularity of the sections at the back where the groove is made which levels up the back of the book to make the back equal to the thickness of the boards. After backing, the books are passed on to receive the split black boards, which are prepared in large quantities in advance. The method of fixing the boards is as follows :—The front and back sheets of the end papers which are really waste sheets, are folded back to the point where the tapes and linen protection come over, the front and back halves are torn away, leaving the portion to which the tapes and linen protection are fixed, these being now inserted into the split boards, which are first glued on both sides of the split. The boards being adjusted so as to give the proper groove or ‘French joint’ at the back, the books are placed between pressing boards with the backs outwards and piled up in the standing presses and left thus under great pressure for five or six hours.

After being taken out of the presses the first operation is to sprinkle the edges, which is done by means of a wire sieve over which a specially made brush charged with suitable colour is gently passed to and fro until the requisite depth of colour has

been obtained. After sprinkling, the books are sorted into piles according as to whether they are to be bound with leather backs or in full cloth or buckram. As all cloth and buckram books are bound with open backs, these are at once passed on to the forwarders in order to receive the linen or leather lining (according to style) at the back preparatory to covering. Books which are to have leather backs are now individually examined and tested to find out which should have fast backs and which open backs. All books made of 'featherweight' or soft spongy paper are placed in piles to be treated with open backs. All books with paper of good or suitable quality are placed in piles for fast backs. This differentiation in the treatment of books according to the nature and quality of the paper is one of the most important features of modern library binding.

The books are now ready for covering. The cloth and buckram books have their covering fixed by glue, each book when its cloth or buckram jacket has been properly tucked in round the edges of the boards being placed between wooden boards with a brass beading which effectively nips the book at the back along the French joints.

The leather backed books have their covering put on with strong paste, and in

the case of the fast backs, a course of hot flexible glue is first run along the back before the pasted leather is drawn on. In the case of fast backs, after the leather is turned over the edges of the boards and properly adjusted at the head and tail, each book is passed with its leather back through a stream of steam which drives the leather close to the book and at the same time melts the glue and paste which form an effective adhesive to attach the leather to the back of the sections.

When the books are dry—both cloth and leather—they are next passed on to the finishers for blind filleting, lettering, numbering, etc. When the lettering and finishing is completed the books are passed back to the forwarders—the leather backed books to receive the cloth or buckram sides—and then to have the end sheets pasted down to the boards, and placed in the presses for final pressing. When dry, the books are taken from the presses, and each book individually ‘opened up’ and examined to ascertain if there is any defect or error. Having passed this examination they are sent to the packing room where they are finally checked with the binding book and despatched to their respective libraries.

RECIPES.

COLOUR for Edges.—Well grind the desired colour or colours with glair and a little oil. Colour the edges with a sponge or brush. For sprinkling, the colour may be applied with a brush, drawing the finger across the brush to ‘fleck’ the colour, or rubbing the brush over a wire sieve.

GLAIR.—About four eggs, of good size, will be required to make half a pint of glair. Break the eggs, separating the white from the yokes: if they are broken separately there will be no risk of any of the yoke mixing with the white as the result of accident. Add a little vinegar to the white and a quantity of water, slightly less than the vinegar, together with a pinch of salt. Beat well with a fork or a devil (a devil is a stick of wood with quills passed through, and is used by being rapidly rubbed between the hands). Take off the froth formed from time to time. The liquid that settles from the froth is the glair. Allow it to stand for twenty-four hours, then strain through muslin. Allow to stand a further twenty-four hours before using. If kept corked, this will not be offensive for some months.

GLUE—

GLUE is obtainable in various qualities and makes. ‘Best’ conveys nothing. Bookbinders’ glue, made from hides, should be used for books. Break into pieces and allow it to soak overnight before melting in the glue pot. A little glycerine serves to give it elasticity. Glue is ‘broken up’ by whisking it rapidly with the brush until it froths. This prevents stringiness and improves it for use in binding.

LIQUID Glue is made by adding a little nitric acid to glue melted in water.

PASTE—

FINE Paste.—Boil alum in water, in the proportion of a teaspoonful to a pint of water. When cold, add more water as required; mix flour to a thin cream; add glycerine in the proportion of a desert-spoonful to a pint. Let the mixture stand for six or eight hours. Bring steadily to boiling point, then boil rapidly for three minutes in an iron saucepan (not an enamelled saucepan, as this being thin metal the paste is liable to burn). Stir all the time. When the mixture begins to boil add oil of cloves, a few drops, or more according to quality. Alum should be avoided in paste intended to be used with white or other delicate coloured leathers.

RICE Paste.—Well mix rice flour with cold water until like thin cream. Then boil gently. A transparent paste for delicate work.

COMMON Paste.—Mix flour with water to a thin cream, add a little dissolved glue according to strength required. Boil for a few minutes. Thin as required with boiled water.

PRESERVATIVES.—Preservatives are of various kinds. Most of them should be avoided as far as possible. The most important are oil of cloves for paste; salicylic acid for glue, gum, etc.; ammonia, camphor, salt, vinegar, etc., for glair.

SIZE, or Glair Water.—Beat the white of egg, in the proportion of one good-sized egg to a quarter of a pint of water, in water until the egg is dissolved. Allow it to stand for twenty-four hours and strain.

SIZE for Marbled Paper, etc.—One pound of glue in five gallons of water and half a pound of white soap. Let the whole stand overnight, then put on a slow fire. When, hot, and the glue and soap are dissolved, pass through a cloth.

SIZE for Paper after Washing.—Water, 1 quart; isinglass, 2 ozs.; alum, 1 oz. Allow the mixture to simmer for about an hour, strain, and use warm. The quantity of isinglass may be increased or decreased according to the strength of size required.

COLD Size is made by boiling an oz. of shellac and $\frac{1}{4}$ oz. of borax in a pint of water. Strain and use cold when required.

WATERPROOF Solution for Paper.—Boil borax one part in twenty-two and a half parts water, and, while stirring, add three parts powdered shellac. Strain through muslin.

BOOK AND PAPER SIZES.

Printing Papers, flat :—

Post	19½ × 15½
Double Post	31½ × 19½
Double Large Post	33 × 21
Demy	22½ × 17½
Double Demy	35 × 22½
Quad Demy	45 × 35
Sheet and Half-post	23½ × 19½
Medium	23 × 18
Double Medium	36 × 23
Quad Medium	46 × 36
Royal	25 × 20
Super Royal	27½ × 20½
Double Royal	40 × 25
Double Foolscap	27 × 17
Quad Foolscap	34 × 27
Crown	20 × 15
Double Crown	30 × 20
Quad Crown	40 × 30
Ex Quad Crown	42 × 31
Imperial	30 × 22

NOTE.—It will be seen from the above that the terms folio, quarto, octavo, etc., have lost all significance. For instance, crown quarto, $10 \times 7\frac{1}{2}$, is the same as double crown octavo.

Names of the theoretical sizes of books :—

Folio = Fo.	A sheet folded into 2 leaves or 4 pages.			
Quarto = 4to.	"	"	4	8
Octavo = 8vo.	"	"	8	16
Duodecimo = 12mo.	"	"	12	24
Sextodecimo = 16mo.	"	"	16	32

Divisions of Printing Papers folded :—

	Folio.	4to.	8vo.	12mo.	16mo.
Post	$15\frac{1}{2} \times 9\frac{3}{4}$	$9\frac{3}{4} \times 7\frac{3}{4}$	$7\frac{3}{4} \times 4\frac{7}{8}$	$5\frac{1}{2} \times 4\frac{7}{8}$	$4\frac{7}{8} \times 3\frac{7}{8}$
Double Post	$19\frac{1}{2} \times 15\frac{1}{2}$	$15\frac{1}{2} \times 9\frac{3}{4}$	$9\frac{3}{4} \times 7\frac{3}{4}$	$7\frac{3}{4} \times 6\frac{1}{2}$	$7\frac{3}{4} \times 4\frac{7}{8}$
Double L. Post	$21 \times 16\frac{1}{2}$	$16\frac{1}{2} \times 10\frac{1}{2}$	$10\frac{1}{2} \times 8\frac{1}{4}$	$8\frac{1}{4} \times 7$	$8\frac{1}{4} \times 5\frac{1}{4}$
Demy	$17\frac{1}{2} \times 11\frac{1}{4}$	$11\frac{1}{4} \times 8\frac{3}{4}$	$8\frac{3}{4} \times 5$	$5\frac{1}{2} \times 5\frac{1}{8}$	$5\frac{1}{8} \times 4\frac{3}{8}$
Double Demy	$22\frac{1}{2} \times 17\frac{1}{2}$	$17\frac{1}{2} \times 11\frac{1}{4}$	$11\frac{1}{4} \times 8\frac{3}{4}$	$8\frac{3}{4} \times 7\frac{1}{2}$	$8\frac{3}{4} \times 5\frac{1}{8}$
Q. Demy	$35 \times 22\frac{1}{2}$	$22\frac{1}{2} \times 17\frac{1}{2}$	$17\frac{1}{2} \times 11\frac{1}{4}$	$11\frac{1}{4} \times 11\frac{1}{4}$	$11\frac{1}{4} \times 8\frac{3}{4}$
Sheet & Half post	$19\frac{1}{2} \times 11\frac{1}{4}$	$11\frac{1}{4} \times 9\frac{3}{4}$	$9\frac{3}{4} \times 5\frac{7}{8}$	$6\frac{1}{2} \times 5\frac{7}{8}$	$5\frac{7}{8} \times 4\frac{7}{8}$

	Folio.	4to.	8vo.	12mo.	16mo.
Medium . . .	$18 \times 11\frac{1}{2}$	$11\frac{1}{2} \times 9$	$9 \times 5\frac{3}{4}$	$6 \times 5\frac{3}{4}$	$5\frac{3}{4} \times 4\frac{1}{2}$
Double Medium . . .	23×18	$18 \times 11\frac{1}{2}$	$11\frac{1}{2} \times 9$	$9 \times 7\frac{1}{2}$	$9 \times 5\frac{3}{4}$
Q. Medium . . .	36×23	23×18	$18 \times 11\frac{1}{2}$	$12 \times 11\frac{1}{2}$	$11\frac{1}{2} \times 9$
Royal . . .	$20 \times 12\frac{1}{2}$	$12\frac{1}{2} \times 10$	$10 \times 6\frac{1}{4}$	$6\frac{5}{8} \times 6\frac{1}{4}$	$6\frac{1}{4} \times 5$
Super Royal . . .	$20\frac{1}{2} \times 13\frac{3}{4}$	$13\frac{3}{4} \times 10\frac{1}{4}$	$10\frac{1}{4} \times 6\frac{7}{8}$	$6\frac{7}{8} \times 6\frac{3}{4}$	$6\frac{3}{8} \times 5\frac{1}{8}$
Double Royal . . .	25×20	$20 \times 12\frac{1}{2}$	$12\frac{1}{2} \times 10$	$10 \times 8\frac{1}{4}$	$10 \times 6\frac{1}{4}$
Double Foolscap . . .	$17 \times 13\frac{1}{2}$	$13\frac{1}{2} \times 8\frac{1}{2}$	$8\frac{1}{2} \times 6\frac{3}{4}$	$6\frac{3}{4} \times 6\frac{5}{8}$	$6\frac{3}{4} \times 4\frac{1}{4}$
Q. Foolscap . . .	27×17	$17 \times 13\frac{1}{2}$	$13\frac{1}{2} \times 8\frac{1}{2}$	$9 \times 8\frac{1}{2}$	$8\frac{1}{2} \times 6\frac{3}{4}$
Crown . . .	15×10	$10 \times 7\frac{1}{2}$	$7\frac{1}{2} \times 5$	5×5	$5 \times 3\frac{3}{4}$
Double Crown . . .	20×15	15×10	$10 \times 7\frac{1}{2}$	$7\frac{1}{2} \times 6\frac{5}{8}$	$7\frac{1}{2} \times 5$
Quad Crown . . .	30×20	20×15	15×10	10×10	$10 \times 7\frac{1}{2}$
Ex Quad Crown . . .	31×21	$21 \times 15\frac{1}{2}$	$15\frac{1}{2} \times 10\frac{1}{2}$	$10\frac{1}{2} \times 10\frac{1}{4}$	$10\frac{1}{2} \times 7\frac{3}{4}$
Imperial . . .	22×15	15×11	$11 \times 7\frac{1}{2}$	$7\frac{1}{2} \times 7\frac{1}{4}$	$7\frac{1}{2} \times 5\frac{1}{2}$

Binders' sizes folded :—

inches.

Foolscap 8vo.						$6\frac{1}{4} \times 4\frac{1}{2}$
Crown 8vo.						$7\frac{1}{2} \times 5$
Demy 8vo.						$8\frac{3}{4} \times 5\frac{3}{4}$
Medium 8vo.						10×6
Royal 8vo.						$10\frac{1}{4} \times 6\frac{1}{2}$
Imperial 8vo.						$11 \times 7\frac{1}{2}$
Demy 4to.						$11 \times 8\frac{3}{4}$
Royal 4to.						$12\frac{1}{2} \times 10$
Crown Folio						15×10
Demy Folio						$17 \times 12\frac{1}{2}$

Account Book sizes :—

	Folio.				Quarto.				Octavo.			
	Broad.		Long.		Broad.		Long.		Broad.		Long.	
	Length.	Width.	Length.	Width.	Length.	Width.	Length.	Width.	Length.	Width.	Length.	Width.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
Foolscap	$12\frac{1}{2}$	8	$15\frac{1}{2}$	$6\frac{1}{4}$	$7\frac{1}{2}$	$6\frac{3}{4}$	$12\frac{1}{2}$	4	6	4	$7\frac{1}{2}$	3
Demy	$14\frac{1}{4}$	$9\frac{1}{2}$	$18\frac{1}{2}$	$7\frac{1}{2}$	9	$7\frac{1}{4}$	$14\frac{1}{2}$	$4\frac{1}{2}$	7	$4\frac{1}{2}$	9	$3\frac{1}{2}$
Medium	$16\frac{1}{4}$	$10\frac{1}{4}$	$20\frac{1}{2}$	$8\frac{1}{4}$	$10\frac{1}{4}$	$8\frac{1}{4}$	$16\frac{1}{4}$	$5\frac{1}{4}$	8	5	$10\frac{1}{4}$	4
Royal	$18\frac{1}{2}$	$11\frac{1}{2}$	23	9	$11\frac{1}{2}$	9	$18\frac{1}{2}$	$5\frac{1}{2}$	9	$5\frac{1}{2}$	$11\frac{1}{2}$	$4\frac{3}{4}$
Super Royal	$18\frac{1}{2}$	13	26	$9\frac{1}{4}$	13	$9\frac{1}{4}$	$18\frac{1}{2}$	$6\frac{1}{2}$	9	$6\frac{1}{2}$	13	$4\frac{1}{2}$
Imperial	$20\frac{1}{2}$	$14\frac{1}{2}$	29	$10\frac{1}{4}$	$14\frac{1}{2}$	$10\frac{1}{4}$	$20\frac{1}{2}$	$7\frac{1}{2}$	10	$7\frac{1}{4}$	$14\frac{1}{4}$	5

TYPE FACES

This is Modern :

Bookbinding

This is Modern Italic :

Bookbinding

This is Old Style :

Bookbinding

This is Old Style Italic :

Bookbinding

This is Old Face :

Bookbinding

This is Bold Latin :

Bookbinding

This is Cheltenham :

Bookbinding

This is Cheltenham Italic

Bookbinding

This is Hawarden :

Bookbinding

This is De Vinne :

Bookbinding

This is Grotesque :

Bookbinding

This is Chatsworth :

Bookbinding

GLOSSARY OF TERMS IN USE IN BOOK- BINDING, LEATHER AND CLOTH MANUFACTURE.

ACID Free Leather is leather dressed to the specification given in the 'Report of the Committee of the Society of Arts on Leather for Bookbinding,' published 1905 by Geo. Bell & Sons, London, W.C. Also in 'Leather for Libraries,' published 1905 for the Sound Leather Committee of the Library Association.

ADVANCE Copies.—Copies of a book bound or in sheets 'advanced': i.e. printed or delivered before the complete order, for early review or simultaneous publication in two or more places.

ALDINE.—Solid-faced ornaments (tools). So called because they are derived from those used by Aldus and others in the 16th century.

ALL-ALONG.—The form of sewing in which the tread is carried from kettle-stitch to kettle-stitch in each sheet or section: i.e. one complete course of tread to each section.

ALL-OVER.—Literally, 'entirely.' A bastard term sometimes applied to patterns in bookbinding made up of numberless repetitions.

AMERICAN Cloth. See *Leather Cloth*.

ANNUAL.—Published yearly.

ANTIQUE.—When applied to type denoting a thick, bold-faced fount with all the lines of equal thickness. In paper: now, a somewhat light weight paper that bulks well, mostly made from esparto grass. A large class with many degrees of quality. In hides: finished with old or natural grain, and mostly in dark shade of brown. As applied to tooling denotes blind lines or stamps, i.e. without gold.

ARABESQUE.—Literally, following Arabian designs. Usually in book and other designs consisting of plants and portions of foliage intertwined in curves geometrically, somewhat after the style of the geometric patterns of the monastic designers, but of curved instead of straight lines.

ARABIC.—In numerals the ordinary form as distinct from Roman figures.

ARMING Press.—A hand blocking-press, so-called because it was originally used to impress

armorial bearings on the sides of the volumes.

ART.—In paper: Art Paper—usually a paper coated with mineral matter, frequently China-clay, highly calendered, for photographic and colour process printing. Imitation art printing paper is inferior in its results. In binding: Art Binding—bindings of special, frequently unique, design, and executed by hand. In bookbinders' cloth: Art Linen, Art Finish, etc.—Art linen has a colour more or less flat and uneven. In cloths with designs, the patterns are usually florid and ornate.

ASTERISK.—A star used to denote many things, to which attention is desired. But of significance to binders, as it is used on leaves to be inserted in place of those containing errors or unauthorised matter and to be cut out of the books containing them.

AZURE.—Blue. Shown in print and heraldry, depicted in black and white by close lines horizontally parallel. Tools in binding so treated are said to be azured.

BACKING.—The process by which the sections are bent over at the back, so as to form grooves into which the boards forming the two sides fit.

BACKING BOARDS.—The wooden boards by means of which the grooves are made. They are of hard wood, or metal-faced on the top edge. As they lie in the press along the sides

of the book they are thicker at the back of the book, and the top edge slopes away from the volumes being rounded or backed.

BACKING HAMMER.—The hammer used in handwork for rounding or backing books when lying in the finishing press.

BACKING MACHINE.—A machine that performs, with a peculiar rolling motion, the work of rounding or backing.

BAND DRIVER.—In flexible binding: a chisel-shaped tool used to correct irregularities in the 'bands.'

BAND NIPPERS.—Pincers used for 'ripping up' the bands in leather-covered books.

BANDS.—In decoration wide parallel lines with ornaments between; literally, bands. But in the work of binding, the cord or tapes on which the sections are sewn. In finished work the term is generally used only when the bands show on the outside. When the back of the book is sawn, so that the cords do not show, false bands are formed with cord or leather cut in two strips, each a quarter of a circle. The bands in this case are 'raised bands.' When the bands do not show, a fillet is placed where they would have appeared. Theoretically these bands show the number of cords or tapes.

BARM-SKIN.—An apron. From barm, the breast, an old Cheshire word.

BASILS.

BASILS.—E. I. are those imported from the East

Indies, N. Z. from New Zealand, Aus. from Australia; they are tanned with the native or mimosa bark, and are liable to the 'red decay,' are not suitable for book-binding, but make good linings, etc.

CRUST Basils are sheep-skins tanned loose in pits, and sold dry as taken from drying sheds.

STRAINED Basils are as above, but wet down, set out with sleeker, stretched on boards, and so allowed to dry.

TAWED Basils are sheep-skins dressed with alum and salt and finished white or nut-brown.

ORGAN Basils are skins tawed as above, but with the salt removed and softened for bellows, etc.

HARVEST Basils. Used chiefly for gloves, aprons, etc.

BASILS Diced.—A skin formerly much used for ledgers, dyed red, glazed, and a diced cross line, marked by hand roller or machine.

LEDGER Basils should be of best bark and sumac tannage, home skins dyed red and glazed by machinery.

BULTER's Apron.—A grained red-glazed sheep-skin.

BLACKSMITH's Apron.—Usually a sheep-skin, white alum dressed and softened, though latterly a bark-tanned sheep-skin has been used.

PLASTER Skin.—A sheep-skin, alum tawed, white base for spreading the medicant for plaster in sickness, etc.

FREEMASON's Apron.—A choice selection of small sheep or lamb-skins, alum dressed, softened, and finished very clean and white.

BASTARD.—A term used for many things with a meaning approaching to its literal interpretation: hence bastard-type is a fount not true to form, but combining features of two or more styles of type. Bastard-size in paper denotes a paper in sheets which does not conform to recognized, or old, paper sizes. Bastard-title is the half-title or short-title usually found, two pages in front of the full-title. Not to be confused with series-title.

BEADING.—The twist of the silk in head-bands. So-called from its likeness to a series of beads.

BEATING.—The hand method of flattening and smoothing the paper before binding: now done by machines as well. See Rolling Machine, Standing Press.

BEATING Hammer.—The hammer used for beating books: a short-handled hammer with a wide polished face and the weight (10 lbs. and more) above.

BEATING Stone.—The stone somewhat resembling a lithographic stone on which the beating is done.

BEND is what in upper leather is called a side or half-

butt; viz. with the shoulder and bellies removed, and the butt split down the centre and sent out in two sides.

BEVELLED.—Usually applied to boards. Bevelled boards describes a bevel on the outer edges of the covers. But is also sometimes applied to the bevelled edges of a panel.

BINDER.—A case in which parts of magazines or periodicals are temporarily held together.

BINDER'S Title.—The title as lettered by the binder on the book. Loose term sometimes applied to the title on the back, at others to that on the side. Generally used to show that it is abbreviated from the full title.

BINDERY.—As an adjective: applied to the workshop, the workhouse, the instructions to the binder, the book in which the instructions are entered, and the sheet as sent to the binder.

BINDING.—*See* Bindery, Book-binding.

BINDING Proof.—*See* Proof.

BI-WEEKLY.—Bi-monthly, etc. Published either twice a week, or every two weeks, etc.

BLACKBOARD.—*See* Millboard.

BLED.—To bleed. To so cut the edges of a book as to cut in the print page.

BLESBOK.—Gnu or Wildebeest. A species of antelope but pertaining to the buffalo in resemblance. Used occasionally for imitation of Levant Seal.

BLIND.—Blind-tooled. Tooled in blind. *See* Tooling.

BLOCK.—The same as in printing: i.e. a metal block for printing on the covers.

BLOCKING.—The same as tooling, which see. There is strictly a slight difference between the use of the two terms. Blocking is applied to impressing a solid design, complete, on a cover; while tooling would denote that the design had been built up by a number of smaller tools.

BLOCKING Powder.—The equivalent of glair in a dry, powdered state.

BLOCKING Press.—The same as the arming press and the finishing press, and the stamping press. It is the press in which the book or books are gripped when being tooled or blocked.

BOARDING.—(1) One of the methods of graining leather. (2) The process of attaching the boards to the book in leather-bound books.

BOARDS.—(1) The pieces of wood used to assist the gripping of books when in process of binding — pressing, cutting, backing, burnishing, gilding, etc.—all of them are different in size and shape; (2) The full-sized sheet of millboard—of various qualities and makes—strawboard, paste-board, etc., all used for binding; (3) A book is said to be 'in boards' when the covers have been laced on to the book, but have not been furnished with cloth, leather, etc.; (4) Also used to denote a finished book with paper over the boards instead of cloth or leather. Sometimes

described as paper-boards. *See also* Split Boards.

BODKIN.—The term is the same in bookbinding as in any other craft. It is used for making the holes in the cover-boards—single—through which the cords are passed when the book is laced.

BODY [of the Book]. The same as in printing. The book without the preliminary matter. Generally from Chapter I. to the end.

BOLE.—[Bol]. A mineral substance having the appearance of red clay, containing silica, oxide of iron, and alumina. Used in gilding.

BOLT.—Used with its ordinary meaning. But also to denote the fold of the paper in the outer edges of books: at one time found only at top and fore-edge, but now also at the bottom edge or tail.

BOOKBINDING.—Literally of course: the materials in which books are bound and the process by which the binding is done. In practice it includes illuminating, and the mounting of illuminations; while for some bindings, jewellers, burnishers, and other metal workers are required.

BOOK-MARK.—Sometimes a separate piece of card, paper, or other material used to mark the reader's place in the book. But also the silk or other ribbon fastened to the head, or head-band of a book.

BOOK-PLATE.—The label pasted on the inside cover

bearing the owner's coat-of-arms, or other device, or even his name only: usually as a mark of ownership. The book-plate is not subject to a licence. Sometimes called *Ex Libris*.

BOSSES.—Protecting pieces of metal, usually incorporated in the design, as knobs or studs.

BROADSIDE.—Any separate sheet printed on one side only.

BROCADED.—(1) Silk on which figures are worked. (2) Any material imitating it.

BROCHURE.—A small printed work. Literally only stitched, but often used to show something between a book and a pamphlet.

BROKEN.—A book is 'broken' when the back (sewing, glueing, etc.) cracks inside from top to bottom, or head to tail. Paper is 'broken' when it has been folded over, and also when it has been creased in process of manufacture.

BROKEN over.—A plate or other inset folded over near the back edge before sewing, etc.

BUCKRAM.—Cotton or linen. Coarse, open-woven and stiffened with size.

BUCKSKIN.—In leather: deer-skin or sheep-skin.

BUNDLING.—Tying up bundles of books or magazines. A bundling press or machine is a press in which this is done with the aid of pressure.

BURNISH, To.—The same meaning as ordinary. Usually applied to the burnishing of the edge of books.

BURNISHER.—The tool with which burnishing is performed, sometimes steel, but more often blood-stone or agate (quartz). Also the one who burnishes.

BUTT.—The part remaining when a wide shoulder and both bellies have been cut from a hide and used for upper leather or mechanical work.

CALENDER.—To calender is to polish by passing between rollers. In paper these rollers alternate: one a steam-heated steel cylinder, the other a flannel coated roller, acting on the principle of ironing. In the manufacture of cloth the principle is the same, although the rollers differ somewhat. Both paper and cloth are said to be calendered when they have been glazed or 'ironed' in this way.

CALF.—

CALF.—Skins taken from European calf, sumac tanned, stained, dyed, and finished plain.

CALF: Divinity: are above dressed in various shades of brown for prayer books, hymn books, etc.

CALF, Persian. A calf-skin imported already tanned from the East Indies, Madras, etc. It generally gives early signs of red decay, is not durable, and is condemned by the report of Society of Arts, etc.

CALF Persian.—A book-binder's term, frequently used when East India sheep are dressed, dyed, and finished plain in imitation of the genuine calf-skin.

ROUGH Calf.—Are skins usually with some defect on grain, and so dressed on the flesh side, and sometimes bleached to obtain whiteness, but properly left acid-free with the usual pale bark shade. The skins are sold to size of cover cut without hole thus:

Measures.

Foolscap	..	..	21 × 15
Demy	..	..	24 × 17
Medium	..	..	27 × 19
Royal	..	..	30 × 22
Super Royal	..	..	33 × 22
Imperial	..	..	36 × 24

When Ro. calf are described as seconds, Foolscap, Demy, etc., it means that the skin averages the size, but may have small cut or hole within the size of cover.

CAMEO-BINDING.—Having an ornament on the boards [not always or only in the centre] in carved relief, in imitation of engraved gems.

CANCEL.—Applied to sheets or leaves in a book to be cut out, and also to the sheets to replace those cut out. Leaves to be cancelled are sometimes marked with an asterisk; but it does not follow that the presence of an asterisk always denotes cancellation, or that cancelled sheets are always so marked.

CAP.—When binders are 'finishing' a hand-tooled book, they protect the leaves by covering with—usually—brown paper wrapped round and pasted so as to envelop the whole of the book except the boards. This is the 'cap.'

CARTONNAGE. — Pasteboard ; which see.

CARTOUCHE.—Literally a scroll of paper with the ends rolled up, bearing the title, etc., of the book, but also used for other title tablets of somewhat similar kinds.

CASE.—The covers of a book when made—usually by machine—apart from the book. Almost synonymous with 'Publishers' Cover.'

CASE-WORK, or Casing.—Inserting a book sewn, stitched, pasted, or rubber-backed, into its case. Is applied to the work of casing books in cases. But is not now so defined as it used to be, as bindings are now often partly made and partly built up.

CATCH-WORD, or Catch-letter.—In old books this is the first word of the next page appearing at the foot of the one preceding it. In modern books, such as those arranged alphabetically, catch-word and catch-letters are those appearing at the top of the page, generally the first and last on the page or pages.

CELLULOSE.—Vegetable fibre : wood pulp, etc.

CENTRE Tool.—A tool used for the centre of a design, or panel. Generally complete in itself as opposed to the border, which may be composed of innumerable tools.

CHEEKS.—The inside face of the sides of a press.

CHEQUER-WORK, or Chequering.—A pattern having alternate squares of different colours.

CIRCUIT Edges.—The cover—usually limp leather—turned over at the edges all round.

CLASPS.—Clasps used to keep book-boards fastened when the book is closed. Now used on private ledgers and supplied with a lock.

CLEANING Off.—Sometimes used for the operation of wiping off superfluous glue, etc., after backing and in finishing.

CLEARING Out.—Removing anything superfluous before pasting down end papers.

CLOTH.—The term applied generically to all woven cover materials, but it is understood that buckram, art linens, etc., are also included in this term. This modern form of cloth binding was introduced early in the nineteenth century, but cloth bindings have been in use for centuries.

CLOTH Boards.—Cloth bound books with stiff covers. *See also* Boards.

CODEx.—A MS. volume. In the olden times waxed tablets fastened together. Plural codices.

COLLATE.—To collate is to compare. In ordinary binding it is sufficient to check the book by the signatures or pages, when there are insertions such as maps these must be collated with the instructions. In old books of value it is necessary to do more than this, to ascertain not only that the whole of the book is present, but that all that is present belongs to the book.

COMB.—Actually a comb-like tool with teeth used for marbling edges, end papers, etc.

CORNERS.—The corners of books. Leather, vellum, etc., used to cover the corners in half and three-quarter bindings. Metal corners for the outside, and slips of metal driven into the board to strengthen the corners. *See also* Pocket.

CORNER TOOL.—A complete tool for a corner design.

COTTON.—Cloth made of cotton.

COUNTER-CHANGE.—Heraldic. Used to describe a design in which the ground and the ornament on it are the same shape or colour.

CREASER.—A steel tool for marking the bands on a book.

CROPPED.—To 'crop' a book is to cut the margin unduly, but not so as to 'bleed' the book. A book so cut is said to be 'cropped.'

CRUSHED: Morocco, etc.—Grained leather, etc., rolled so that the coarse grain appears brushed or flattened, but glazed bright.

CUIR-BOUILLI, or Bouilly.—Leather boiled soft and dried hard with the desired design, or in the required shape.

CUT down, Cut up.—The slipping or dipping of the plough knife in hand work, cutting the edge 'up' or 'down' out of the straight.

CUT edges, or Edges cut.—When the edges have been cut with a blade and not opened by the paper knife.

CUTFLUSH.—When the book, including the cover, is cut after binding, so that the cover does not project beyond the book paper.

CUT in boards.—A book cut after the boards have been laced on.

CUTTER.—The blade or the machine, or the man working the machine for cutting the edges of books, etc. *See* Guillotine, Rotary Cutter, etc.

CUTTING Press.—The press, with runners, on which the plough is used.

DAILY.—Published daily.

DATE Label.—(1) The label on the inside of lending and subscription library books to show the date of issue or return. (2) The label attached to a parcel of skins or binding to show when received or made.

DECKLE.—The rough edge of paper. In handmade paper this was the natural result of the frame in which the paper was made. This can be given to books of machine-made paper by roughening with a saw; or where good imitations or forgeries are required the deckle edge can be imparted with a fine spray of water.

DEMY.—Size of paper. *See* p. r86

DENTELLE.—A lace-work like decoration of book covers.

DEVIL.—A piece of stick with short quills thrust through it for beating 'glair' in the making by twisting between the palms of the hand.

DIAPER.—A pattern, geometric or floral, worked in imitation of low relief, repeated over some expanse.

DIE.—A stamp engraved with a design.

DINTLE is a hide back or butt, unrolled and not split in the centre.

DIPTYCH.—A folding writing tablet: a double codex, folding.

DIVINITY Calf. *See* Calf.

DOUBLE Foolscap, etc.—Size of paper. *See* p. 186.

DOUBLED.—A design is said to be 'doubled' when a tool used a second time on the same impression, is not impressed exactly on the same lines.

DOUBLURE.—The inside of the cover boards lined with leather or other material and decorated.

DUCK.—The Canadian term for library buckram, legal buckram, art linen.

Duck Leather. *See* Leather Cloth.

DUMMY.—A book made up of blank sheets, or with title and contents only as sample for size and appearance; generally used in estimate of size, cost, etc.

DUTCH Metal.—In leaf and powder. An imitation of gold for gilding. It has not the depth of colour of gold and 'goes off.'

DUODECIMO.—Book sizes. *See* p. 186.

EARLY Copies. *See* Advance Copies.

EDGE-ROLLED.—Applied to boards rolled, blind or decorated.

EDGING.—Sometimes applied to the ornament on the edges of the board.

EDITION.—The number of copies of a book issued without any alteration. After alterations have been made fresh copies become the second, etc., edition. A book that is published again without alteration is strictly described as a second, third, etc., 'impression,' but this is not always followed. There are various kinds of editions, amongst (1) Limited edition: usually understood to mean that comparatively few copies have been or will be printed. (2) An edition limited and numbered is the same as (1) except that each copy is numbered from one, upwards. (3) Edition de Luxe is a splendid and expensive edition, generally used only when there are two editions, the edition de luxe and a cheaper one. (4) Editio princeps: an original edition, generally only previously known in manuscript.

EDITION Binding.—Sometimes used synonymously with publishers' binding.

EMBOSSED.—Leather or other material with a raised design worked by plates, etc.

EMBOSSING.—Raising designs by means of dies or plates.

ENDPAPERS.—The paper pasted to the inside of the boards and also the first loose leaf, i.e. the other half of the pasted sheet.

Ex Libris.—Book plates.

EXTRA.—Applied to several things outside the ordinary.

Extra binding generally means special end papers, silk headbands, etc. Gilt extra, generally applied to prizes, etc., and means, as the term implies, more gilt than ordinary. Somewhat vaguely used.

FACED Cloth.—Cloth with a finish on the one side and dull on the other.

FAIR Leather. — Tanned skin not artificially coloured.

FAIR Calf is as above, also known as Law Calf.

FANFARE.—A design for bindings of interlacing fillets forming geometrical sections, and with floral sprays in the spaces.

FAST.—Fast colours or fast finish. Colour that will not fade in (1) sunlight; (2) will not wash off.

FEATHERWEIGHT. — Literally light weight. In paper it denotes thickness without solidity and substance. There are innumerable qualities.

FEINT.—Ruled feint denotes that the cross or horizontal lines are faint in appearance.

FILLET.—(1) The tool—a wheel fixed on an axle—with which lines are made on book covers. (2) The line or lines so made.

FINISH, To. See *Finishing*.

FINISHING.—The last stage of binding, including the gilding, tooling, etc., in hand work. The 'finisher' is the one doing the work.

FINISHING Press.—The press in which books are held while being tooled, or 'finished.'

FINISHING Stove.—The stove on which the tools are heated for 'finishing' or tooling the book. Generally gas heated; but also oil, electric, coal, and charcoal.

FLAT.—In colours, an even colour without design.

FLAT Back.—A book bound without rounding the back: the back being square with the sides. Often called American flat-back binding.

FLEXIBLE.—Flexible sewing or binding generally means sewing right round the cords or tapes, or raised bands with the leather, or other back material glued to the back of the book itself so that the back of the cover bends with the book when it is opened. More properly this is a 'tight back,' which see.

FLEXIBLE Binding. Also sometimes applied to leaves bound together by a solution of rubber.

FLY-LEAF.—A blank leaf at the beginning and end of a book, usually in addition to the loose leaf of the end paper and next to it.

FLY-TITLE.—Sometimes used for 'half' or 'bastard' title, or the short title of a section of a book not in the front.

FOLDER.—(1) The instrument used for folding paper, of various sizes, but most resembling a paper-knife. (2) The user of the instrument. (3) The machine—folding machine—used for folding paper, sometimes as part of the printing machine.

FOLIO.—Book sizes. *See* p. 186.

FONT.—A set of letters, numbers, etc. But also used in another sense, as representing style of letters, as for instance when a letter of a different size or style appears in a line of print, or a word, it is said to be of a wrong fount.

FOOLSCAP.—Size of paper. *See* p. 186.

FOREEDGE.—The front edge. Foreedge painting: the painting on the fore-edge.

FOREEDGE Painting.—Pictures found, usually in old books, on the fore-edge of books.

FORMAT.—In French, size only; but also size and shape, and sometimes style as well in English.

FORRIL OR FOREL.—A kind of parchment; a cheap binding used for account books, etc., also the covering for MSS.

FORWARDING.—The stage of work on a book between sewing and tooling, etc., including rounding, backing, putting in boards, etc.

FORWARDER.—The worker engaged on forwarding work on the book from the sewing to the finishing stage.

FOUNT. *See* Font.

FOXED.—Discoloured: spotted. The term is generally used to describe the yellow spots left in paper by damp.

FRENCH Joint.—A revived style affecting the hinge of the cover. The boards have a sufficient distance between their back edge and the 'round' of the back of the book to allow

thick material to be well pressed in and to work freely as a hinge.

FRONTISPIECE.—An illustrated page facing title page, sometimes front.

FULL-BOUND.—Generally used for leather bindings when the term denotes that the book is entirely covered with leather in one piece; more often used 'full leather' or 'full cloth,' etc.

FULLING.—Drawing up cloth on one side more than the other.

GATHER, To.—In gathering the folded sections are placed in piles in their proper order. These are then 'gathered' one by one to make complete books. The person doing the work is a gatherer. The machine employed in large binderies is a 'gathering machine.'

GAUFFRE. *See* Goffer.

GAUGE.—A measuring tool with a pin marker for measuring book sizes on the boards before squaring and cutting.

GAUZE. *See* Mull.

GEOMETRIC.—As the name implies, when applied to book-cover designs, a pattern in which the lines lace and interlace geometrically.

GILT.—The gilding on a book, including covers and edges.

GILT edges.—The edges of the book gilt on all three sides.

GILT top.—The top edge only cut and gilt, sometimes said to be 'top edge gilt.'

GLAIR.—An albuminous size: usually and most easily made

from the white of eggs (*see recipe*), used for gilding the covers and edges, and also for glazing leather.

GOFFER or Goffered edges.—Edges indented by tooling.

GOLD Cushion.—The pad usually packed with blotting paper, felt, or some similar substance, and covered with rough or underside leather. The gold leaf adheres to the 'rough' just enough to retain it in position.

GOLD Knife.—The knife with which the gold leaf is cut while it lies on the gold cushion. It should be long with a straight-edge blade, rather narrow, and not too sharp.

GOLD Rag.—The flannel with which the superfluous gold is rubbed off after gilding. When operations are large enough the 'rag' is sold to the refiners.

GOUGE.—The same as the hollow-bladed or curved-blade chisel. But, in tooling, without the sharp edge.

GRAIN.—The arrangement or direction of the fibres in paper, etc., the warp in cloth, the texture in leather. To dye in 'grain' is to dye deeply. Graining cloth or leather is done in a variety of ways: by rolling between rollers with an engraved grain on the one; by pressing between flatplates; or by hand with a cork-covered board, sometimes termed 'boarding.'

GRAINGERIZE, To.—The insertion of extra-illustrations in books, usually topographical or

biographical; the term is derived from Rev. James Grainger who introduced it. This must not be confused with the termed extra-illustrated when the illustrations are issued with the book as published.

GROOVE. *See* Joint.

GUARDS.—Used generally in its literal meaning, as for the metal guards at the corners of books. Used specially (1) Paper or linen strip folded in and sewn with the book, to which plates, maps, etc., are attached; (2) Strips in large or small numbers to widen the back of a book, when it is intended to put other papers, etc., into it after binding, as for instance, a scrap book; (3) The linen or paper pasted down the fold of two leaves to strengthen it. Books treated in either of these ways are said to be guarded.

GUIDES.—The grooves or strips of wood on the cutting press for the hand-plough.

GUILLOCHE.—A design composed of two or more bands intertwining and forming a continuous series.

GUILLOTINE.—A cutting machine for paper, boards, etc., working on the principle of the guillotine—a straight blade on an upright frame.

GUINEA-ROLL or Guinea-edge.—A roll-pattern in the style of the edge of old guineas.

HALF-TITLE. *See* Bastard.

HANDLETTERS or Handle-letters, or Handtools or Handle tools.—Letters, figures, and

ornaments used separately in wooden handles as distinct from letters used—a number at once—in a holder.

HALF-BINDING.—A book with leather corners and leather back coming well over the side of the book is said to be half-bound. In three-quarter binding, the back leather covers more of the side, and the 'corners' are larger. The term is obviously short for half-leather binding.

HEAD.—The top of the book is described as the head. But a headpiece is the ornament (in printing) at the top of the page commencing a chapter.

HEADBAND.—The silk or other band at the top or at both top and bottom of a book. They are of two kinds, the one worked or made, the other simply stuck on as it were. The former, besides being ornamental, is useful, but the latter is ornamental only.

HEADCAP.—The headband is set when the leather cover forms a 'cap' to the headband, adapting itself to the curve of the back.

HEEL-BALL. *See* Rubbings.

HEIGHTENED.—In illumination, coloured, capitals, borders, etc., 'heightened' with gold.

HOLDER.—*See* Type holder.

HOLING.—The process of boring holes with a bodkin or awl in the boards for the slips or cords.

HOLLOW Back.—As distinct from tight-back, a book is said to be bound with a hollow back

when the *back* portion of leather or cloth is not pasted or glued to the book, so that when the book is opened the outer back cover still retains its shape.

HOLLOW Tooling.—A design outlined only in gold.

HYDRAULIC Press.—A press worked by hydraulic power for compressing books left in it in large numbers.

ILLUMINATING.—Ornamentation in gold and colours, usually on vellum.

IMBRICATE.—To lay over one another as in tiling. Applied to ornament of a similar kind.

IMPERFECT.—Sheets, leaves, plates, etc., are described as imperfections when they are damaged and cannot be used.

IMPERIAL.—Paper size. *See* p. 186.

IMPRESSION. *See* Edition.

IN boards. *See* Boards.

IN quires. *See* Quires.

INDIA Paper.—A kind of paper generally used for engravings.

INDIA proofs or India Paper proofs.—The proofs—and also by common usage, the illustrations—of engravings, etc., on India paper.

INDIA-RUBBER. *See* Rubber bindings.

INLAID.—An inlaid design in leather bindings is one having leather of another colour or style let into the leather cover.

INSERT.—Usually applied to a circular or leaflet placed loose between the leaves of a book or magazine. Registered newspapers may not carry inserts

through the post. *See also* Inset.

INSET.—Sometimes used in the same sense as 'insert' (which see), but more particularly a leaf, or leaves, placed between other leaves already folded, and forming part of the book, etc.

INSIDE Margins.—Of two kinds. (1) The narrow border of leather turned in over the board of the cover leaving the margin round three sides of the pasted down end paper. (2) The white, at the back centre of the opened book between the two print pages.

INTERLACING.—Applied to a design of an interlacing pattern. Also to actual leather strips interlacing and inlaid or otherwise attached.

INTERLEAVED.—A book is interleaved when blank leaves are inserted between the printed pages.

ITALIAN.—Term synonymous with Aldine when applied to book ornaments.

JANSENIST.—A book is said to be bound in the Jansenist style (from Cornelius Jansen) when there is no ornamentation on the outside of the cover. There may, however, be ornament on the inner side of the board.

JAPANESE Vellum.—Refer to Vellum.

JAPON Vellum.—Refer to Vellum.

JAVELLE Water. A bleaching agent, primarily used by French laundresses; also used for books.

'JESS' Leather.—Used for aeroplanes. Word got from the thongs used to fasten hawks in falconry.

JOINT.—The term is applied in several ways in bookbinding. (1) The complete hinge of the cover, cf. French joint. (2) Strips of various materials attached to the fold of end papers, and first and last sections, etc. (3) The groove only, as opposed to the whole of the hinge. (4) A mend.

KANGAROO.—The Australian leather when dressed and free makes a supple and durable bookbinding leather, and is also used for running boots, etc.

KETTLE-STITCH.—In some hand-sewn books and some sewn by machine the stitch at the head and tail—or top and bottom—of each section joining it to those on either side. In other cases the needle holes nearest top and bottom. The derivations are various and uncertain.

KEYS.—The cords or tapes on the sewing frame—or press—are attached at the top to the wooden crosspiece; at the bottom they are fastened to metal keys—somewhat resembling the prongs of a blunt fork with a circular hole at the top—which pass through a slot in the board, and when turned across the slot cannot pass through until the press is loosened.

KNOCKING down.—Applied to the process of beating flat the slips, cords, or tapes laced through the boards. The

knocking down is done on a knocking down iron. This has a smooth upper surface. On the back, across the centre, is a squared projection. The iron is laid face upwards on the press while the projection is gripped between the cheeks of the press.

LABEL.—The ordinary meaning. The label—or book-plate—is generally pasted on the inside of the front cover and shows ownership of the book. But the term is also applied to the title-label on the back when this is impressed or printed on separate slip.

LACING.—When the cords or tapes—slips—are passed through the holes in the boards to attach them to the book.

LARGE Paper Edition.—Books, etc., printed on extra large paper giving a very wide margin.

LAW Calf. *See* Fair Calf.

LAY Cords.—The cords, strings, or tapes on the sewing frame.

LAYING Press.—A press having the two sides square, united by two large wooden screws, turned by a metal handle inserted in holes in the screw head. Having on the upper side runners for the plough. Also called the cutting press.

LEAF.—(1) Leaf metal, i.e. gold leaf, silver leaf. (2) Two pages of a book on the same 'leaf,' back to back. Two pages make the leaf and leaves; together, make the section.

LEAFLET.—A single leaf printed on both sides (*See* Broadside), complete in itself; also two or more leaves folded but not bound or stitched; sometimes described as a 'tract.'

LEATHER.—Prepared skin.

LEATHER Cloth.—Cloth or other textile coated with a preparation, as American cloth, duck leather, to look like leather.

LEATHERETTE.—A pliable material, other than real leather, grained to look like leather.

LETTERING Box.—The box in which the hand tools are kept.

LIMP.—Limp binding, limp boards, limp covers, are all terms used to describe a book bound with covers that readily bend without cracking; and further described as limp leather, or limp cloth—seldom, if ever, applied to paper covers. The covers may be lined or not.

LINEN.—A woven material made of lint or flax.

LINING.—Linen linings are strips of linen on the *inner* folds of a section sewn through with the section and pasted down. Lining papers are the same as end papers. Also applied to the process of lining the back with brown paper or leather before covering.

LINING-PAPERS.—A term sometimes used synonymously with end papers.

LIZARD.—Skins come mostly from the Mediterranean, are dressed as white leather with

alum and salt, and used for bags, purses, etc.

LYING Press. *See* Laying Press.

MAGAZINE.—A pamphlet or a book published from time to time—usually at regular intervals—in a series of issues, containing compositions by different writers on various topics.

MAGAZINE Case, or Magazine Cover.—The temporary cover—usually for a single number—of a periodical. Magazine cases are of various kinds, but the principle is the same in most, viz. two covers or boards joined at the back with a cord or tape down the centre.

MAN Skin.—The nature of the skin depends on the part of the body from which it has been taken. Its dressing is mostly confined to France, where in some instances the records of the trial of a criminal has been bound in the skin of the condemned man, tanned in bark liquors.

MAG.—Magazine.

MANILA.—A paper and a card. Made from Manila hemp in the best qualities, but imitated with other materials.

MARbled.—Usually applied to the edges of a book, which have been cut and ‘marbled.’ Also marbled end-papers, etc.

MARBLING.—The process of imitating marble on paper, etc. Edges so treated are marbled-edges; and papers are marbled end-papers, and so on. The man doing the work is the ‘marbler.’

MARGINOLIA.—Notes written in the margins.

MARGINS.—The white borders round a page of print. *See* also Inside Margins.

MARK.—Binder’s mark: the sign by which a binder showed he had bound the book.

MARKER. *See* Bookmark.

MARKING-UP.—Dividing the back of a book into spaces for lettering or for placing the cords before that.

MARK-OUT.—Laying down a design.

MATTER.—Generally the solid printing of the body of a book, excluding title, contents, index, etc.

MILLBOARD.—Made in the same way as pasteboard—but not referred to as pasteboard—from old rope (other materials are used for various qualities). Being rolled under heavy pressure it is very stout in comparison with its thickness. To be obtained in various thicknesses or ‘weights.’ Used for covers. It is popularly believed that the darker the colour the better the quality.

MILLBOARD Machine.—The cutting and squaring machine used for cheap-board work.

MILLING.—Rolling in a mill, passing through the rollers of a machine.

MITRED.—The ordinary meaning; also when the squared lines of a design meet without passing; also the turned-in leather at the corners.

MONKEY Skin.—Bark tanned and dressed soft, makes a most supple and durable leather for purses, bags, etc.

MOROCCOS—

ALL genuine moroccos must be made from goat-skins, which vary in quality according to the country from which they are imported.

CAPE Goat Moroccos.—Are of the highest quality, and have the most pronounced grain formation, and yield almost the richest finish procurable for bookbinding.

FRENCH Morocco.—The ordinary trade leather supplied for this is a sheep-skin grain split treated with a paste wash on flesh, and afterwards glazed bright and finished with a cross or straight grain.

LEVANT Morocco.—The name denotes a grain and not a source of supply, though originally it was applied to skins coming from the Turkish region. The grain is the largest finished and is very handsome when completed by hand.

N I G E R Morocco.—The goat-skin of the district tanned by the natives of Nigeria, and imported in the plain undressed state. Only a very small proportion are undamaged, but these make a handsome binding much sought after by artist binders.

OASIS Morocco.—A name given by E. and J. Richardson,

of Newcastle, to the second grade of the Niger goats, which they re-tan in sumac, and dye acid-free, in many shades of colour.

PERSIAN Morocco.—Is, when genuine, made from Indian or East Indian goat-skin, but the term is frequently applied by bookbinders to East Indian sheep dressed in imitation.

SWISS Moroccos.—Are of a softer nature than the Cape, and make a leather suitable for upholstery.

TITLING Moroccos.—A goat skin shaved very thin and placed on book with name for its use. Persian goats and sheep are frequently dressed for this work.

TURKEY Morrocco.—Has now come to mean a goat-skin, finished with a fine hard grain for bookbinding.

MOosaic.—The ordinary meaning applied to leather binding designs, denotes small pieces of coloured leathers let into the leather of the binding. *See* Inlaying.

MUCK Buttoned.—A term used for a hide damaged on butt by being sent to market with dung adhering to hide.

MULL.—Soft muslin; but in binding it is loosely woven without any looping of the warp threads—almost gauze—and is used to glue to the back of the book before the cover is put on: with or without the use of tapes or strings.

NAP.—The fluffy or woolly nature of the surface of cloth, etc. *See also* Pile.

NETWORK.—A design showing cross-lines like those in a net.

NIPPERS. *See* Band Nippers.

OAKBARK.—The bark of some species of the oak used in leather tanning.

OVERSE.—The upper or front cover of a book or of a design for a book cover, etc.

OCTAVO.—Booksizes. *See* p.186

OFF-CUT.—The 'margin' cut from a sheet of paper so that it will fold to the required size, etc.

OFF-PRINT.—A reprint of an article, etc., from a periodical.

OFF-SET.—The term applied to a process in printing, but also to ink when it 'sets off,' which see.

OIL.—Of various kinds and used for a variety of purposes. The gold rag is sometimes called the oil-rag, because it is well oiled to make the waste gold adhere.

ON.—The work in hand: as, 'what is on the machine?'

ON-LAID. *See* Inlaid.

ONE Sheet on.—The same as sewing 'all along,' as distinct from sewing two sheets on.

OPENED.—The leaves of a book cut with a paper-knife.

OPUS.—A work, a book, Magnum Opus; the work of a lifetime, etc.

OUT of Boards.—Before the book is put into boards, generally used when the edges are cut at this stage.

OUT of Truth. *See* True.

OVERCAST, or Oversewn.—A variety of forms of overcasting. The principle of all forms is that the stitch goes through the side of the section or sheaf of leaves closed flat, taken out at the other side and round the back before being re-inserted. Sometimes ordinary machine sewing—like a hem on a garment—is described as overcasting.

OVERS.—Complete copies or sheets over and above the number ordered from the printer: i.e. an edition of 1,000 usually numbers 1,006. Sometimes depends upon the size of the paper and its cutting.

OX HIDE—

BOOKBINDING.—Are bark-tanned, dyed, and finished plain, or fine grained; when acid free they wear well and are moderate in cost.

'BUFFALO' Hide.—So-called, is an ox hide tanned with bark, and enamelled semi-bright for railway carriage upholstery, etc.

CORDOVAN.—Is a hide shaved and dressed, satin on the flesh or inside, the grain part being left plain.

CROP Ox Hide.—Is a bark-tanned hide, unrounded, and sent as taken from the drying shed.

'DEW' Hide.—A pure chrome tanned leather, with natural grain curved and dressed, dull finish for all hard wear, such as policemen, postmen, etc.

ENAMELLED Hides.—An ox hide tanned with bark, and finished with a mixture of Prussian blue and Baltic linseed oil dried with great heat in an oven and grained up.

FLESHES.—Are the under-side of the hide split before tanning, and made into imitation of the enamelled and Japanned hide.

JAPANNED Ox Hide.—Is the same as enamelled, but finished with a quite plain flat surface.

KIP.—Is the small hide taken from the ox after outgrowing the calf stage and not quite at maturity. It has some of the good qualities of both, but has not quite so strong a texture as the ox hide.

'Nova' Hide.—A pure chrome tanned leather with pebble hand-finished grain, curried and dressed bright for shooting boots and outdoor wear.

OFFAL.—Is the trade term for the shoulder, bellies, cheeks, faces, or tails rounded from the choicer part of hide.

OX HIDES, Sides.—Is usually the half of butt cut lengthways, but may be the whole hide cut similarly.

PATENT Ox Hide.—Is an old name still sometimes used for the enamelled or Japanned hide.

PADDED Leather.—Leather bindings with blotting paper, cotton wool, or other padding

between the leather and the boards.

PAGE.—Has various meanings : (1) The ordinary page of the finished book. (2) The actual print surface; and also when applied to sizes. (3) The page before cutting.

PALETTE-KNIFE.—The knife used for mixing colours for end-papers, etc.

PALIMPSEST.—A manuscript (usually parchment) used twice, the first writing generally having been erased.

PALISSEE.—Indentations on ornamental pointing both up and down.

PALLET.—(1) A tool used for spreading gold-leaf. (2) A tool, usually a line or ornament for lettering and decorating the backs of books. (3) The type-holder for loose letters, etc., for tooling the covers.

PAMPHLET.—A work of from one to five sheets. Stitched but not bound.

PANEL.—(1) The space between the bands, raised or otherwise, on the back of a book. (2) The space enclosed between a border or frame, either raised or ornamented on the flat.

PANEL Stamp.—The tool used for making the panel in book ornamentation.

PAPER.—For paper sizes and makes, *see* p. 186.

PAPER Cutter or Knife.—The implement used for cutting paper when folded. Also used as a folder and then called a 'folder.'

PAPERING.—Pasting down the end papers.

PAPERING-UP.—The act of capping. *See* Cap.

PAPYRUS.—The grass from which paper was made in ancient times.

PARALIPOMENA.—Something passed but given in a supplement.

PARCEL.—Bundles of skins are called parcels.

PARCHMENT.—Strictly the skin of the sheep or goat prepared for writing. But *see* Paper, Virgin Parchment, etc.

PARING.—To thin the leather by cutting away the underside. To shave the edges. Bevelling the edges. The 'parer' is the person doing it or the implement used. Also called 'paring-knife.'

PARTS.—A book is said to be in parts when it is issued separately, all the parts forming a complete work. A magazine or a continuous periodical is said to be in 'numbers.'

PASSE-PARTOUT.—A frame or mount of two sheets of some transparent material bound all round by paper or other thin material.

PASTE.—An adhesive, usually made with flour and water. *See* recipes, p. 184.

PASTE-TUB. *See* Tub.

PASTE-WASH, or Paste-water.—Paste thinned with water.

PASTEBOARD.—A [card] board made by pasting sheets of paper together. Also made with pulp and moulded.

PATTERN.—A book bound 'to

pattern' is one bound in the same way as the sample given. Pattern-book is the book in which the patterns are kept. *See* Rubbing.

PEEL.—A wooden implement in the shape of a 'T' square, mostly used by printers, but also by binders, for carrying washed sheets to the drying lines.

PELLET.—A small rounded boss.

PELT.—The hide with the hair on it.

PENCIL.—The brush, usually of camel hair, used for applying glair in gilding.

PERIODICAL.—A magazine or other publication, which appears at stated intervals.

PERIODICAL Case.—The same as magazine case, which *see*.

PHYLACTERY.—Besides other meanings, the case in which charms and 'books' were preserved amongst the early Christians.

PIE.—Type is said to be *pie'd* when the loose letters are mixed.

PICKED out.—Marked with spots of colour, etc.

PIECE.—To 'piece out' is to build up bit by bit. Piece work is work done for so much for the piece. The material attached to the binding for lettering, etc.

PIERCED.—Metal corners, clasps, bands, etc., are often pierced, i.e. the design is cut out of the metal.

PIGMENT.—The colouring substance.

PILE.—The hairy surface or nap on cloth set evenly.

PINKED.—Pierced with small holes.

PIRATE.—To pirate is to take books, designs, etc., and reproduce them without authority.

PLANT.—A term applied to all the materials and tools in the bindery.

PLATE.—(1) The metal plate from which an illustration is printed. (2) The illustration so printed. (3) The illustrations printed from any media on paper differing from that on which the type is printed.

PLOUGH.—The frame holding the knife for cutting the edges of books by hand while they are in the laying press.

POCKET.—(1) The receptacle usually on the inside back cover for holding loose maps, plates, etc. (2) Also for holding the card or ticket in library books, sometimes called a 'corner,' as it is usually a triangular slip pasted at the corner of the inside cover.

POCKET Edition.—A small edition to go into the pocket, generally of a work that has already appeared in larger form.

POINTS.—The unit of measurement in type. Guide holes in sheets to be folded by machine.

POKER-WORK.—In binding, the designs burnt on leather with hot pokers or electrically heated tools.

POLISH.—The gloss imparted to leather by using the 'polisher,' a metal tool with a curved face,

The user of the tool is also called the 'polisher.'

POLYGLOT.—A collection in one volume of several translations of the same work.

PORPOISE Leather.—The actual skin from porpoise is seldom or never dressed. The skin of the white whale being tanned and oil dressed for use for shooting boots, and boot laces.

PORTFOLIO.—A case for carrying or holding loose leaves, papers, etc., without binding or sewing them.

POST.—A size of paper. *See* p. 186.

POWDERED. *See* Semé.

PREAMBLE.—The preface or introduction.

PRELIMINARY Matter.—The pages of a book or the matter on them preceding the body of the work. Usually numbered in Roman numerals, but not so generally recently.

PRESS.—A now little used term for a bookcase.

PRESSES.—The generic name applied to the various presses in use. *See* Finishing, laying, standing, etc., press.

PRESSING Boards.—The wooden boards placed between books in the standing press, etc.

PRESSING-BLOCKS.—Pieces of wood used in filling up the standing press.

PRESSING Plates.—Metal plates used for leather finishing.

PRESS-MARK.—The letter or number, etc., on a book to denote its position on the shelves.

PRESS-PIN.—The bar for screwing up the laying press, etc.

PRINCEPS. *See* Editio princeps.

PRINT, IN.—A book that can be obtained from the publisher. A book is out of print when no copies can be so obtained.

PRINTER'S Mark.—The trade device of the printer, sometimes on the title page, sometimes on the last page.

PRIVATELY issued, or Privately printed.—It is believed that the term is not legally defined, but is usually understood to mean a book, all the copies of which are subscribed for, without being offered to the public, before printing and none sold after printing.

PROOF.—(1) The full-sized leaves of a book not cut when the rest of the book is cut to show the amount of margin that has been cut. (2) Proof copies in binding are those bound from the sheets printed in proof to submit to the author, publisher, etc.

PROOFS.—The first impressions of engravings, etc.

PSALTER.—The books of Psalms bound alone.

PUBLISHER'S Binding.—The covers in which a book is first issued, generally, but not always cloth. *See* Case-work.

PULLED.—A book prepared for rebinding is said to be 'pulled.'

QUAD, Crown, etc.—Paper sizes. *See* p. 186.

QUAGGA.—One of the horse-like animals of Africa, once very

plentiful; it is now almost extinct. Its skin used to make a very good substitute for, and imitation of, Levant seal.

QUARTER-BINDING. *See* half-binding.

QUARTERLY.—Published quarterly.

QUARTO.—Book sizes. *See* p. 186

QUIRE.—(1) 24 sheets. (2) Each complete book in sheets before folding.

QUIRES.—A book is said to be in the quires, or from the quires, before the sheets are folded. Books are sometimes sold 'in quires' when they are to be specially bound.

RANGE.—The shoulder of hide without cheeks, faces, or coarser part of neck.

RASPED.—Edge of boards, etc., rubbed off.

READING Case.—Sometimes used synonymously with book-cover. Cases are made of various material, and in many sizes and forms. *See also* Magazine cover.

RECASING.—A book rebound in its old case. When the sections have been sewn again it is sometimes described as resewing. Both terms are used loosely for the same thing.

RECTO.—The page of an open book on the right hand side. The opposite page is the 'verso.'

RED Gold.—Orange-tinted gold-leaf.

RED under Gold.—Edges—usually, but other decoration as well—coloured red and then gilt, giving a richer colour to the gold.

REGISTER.—(1) A list of signatures: in old books found at the end of the volume as instructions to the binder, given separately in a collation. (2) When the page of print on the one side of the leaf is in exactly the same position as the print on the other. (3) The silk or ribbon book-marker attached to the head of the volume.

REMAINDERS.—To remainder a book is to sell off the stock for sale at a price less than the published price. Remaindered in sheets denotes that the book has been sold without being bound and in these cases the purchaser of the stock often has the copies bound in a different style before putting them on the market.

REVERSE Cover.—The under cover of a book.

REVERSIBLE.—Cloth the same on both sides, or finished both sides, so that either can be used.

REVIEW Copies.—The portion of an edition set aside for presentation to periodicals for reviewing. Sometimes in cheaper bindings, or in wrappers.

RHINOCEROS and Hippopotamus Hides.—Are occasionally tanned, but take several years to turn out properly. They are used for buffing, gun recoil on gun carriages, etc.

RIBBED.—Cloth with raised lines.

ROANS—

BUFF Roans.—A skin bleached, dressed with milk, and finished semi-bright; used for hat linings, slipper linings.

CREAM Roans.—Bleached, seasoned, and machine glazed, and grained bright.

EMBOSSSED Roans.—Are skin, not hand finished, but with grain pressed on by machine, with electro-plate of a grain taken from various skins, such as seals, alligators, elephants, etc.

FRENCH Roans.—Are sheepskins dressed and imported from France.

PASTE Grained Roans (a bookbinder's term).—Are sheepskins, split into grain and flesh when in the limed condition, the grain side afterwards tanned, and when in the finishing state, a flour paste is put on flesh side, which makes them plump and able to take a bright cross or straight grain. Sometimes also called French Morocco.

ROANS.—Are sheepskins sewn up at sides and neck, filled with sumac, and then put in sumac pits till fully tanned, shaved to substance, but not split by splitting machine, dyed, and finished.

STRAIGHT Grained Roans.—(A bookbinder's term). Is also the grain side of a split sheep, dyed and finished with a straight grain.

TITLING Roans.—A best quality sheep-skin, shaved very thin, for use on book with name, etc.

ROLL.—A wheel with a pattern engraved upon it, used in decorative binding. Also called a Roulette.

ROLLING.—The synonym in machine work for beating in handwork. The machine is known as the rolling machine, the paper being passed between two rollers.

ROMAN Figures, Type, etc.—Roman figures or numerals are I, II, III, IV, and so on; Roman type has a seriph as **H**, distinct from block letters **H**, etc.

ROTARY Cutter.—A machine largely used for fine-cutting on cards for indexes, etc., on account of the exactitude with which it can be worked, but also used for cutting cards of any description. The blades are circular, fixed on an axle, and the cards pass beneath the blades on a flat bed.

ROUNDED.—(1) Rounded back: a book that has had the back of the folded sections hammered or rolled until it forms the segment of a circle. (2) Rounded corners: when the front corners, either top or bottom or both of the boards are rounded to prevent the wear of friction.

ROUNDLET.—A small tooled circle, generally used when worked in gold.

ROUNDING and Backing Machine.—A machine performing the combined action.

ROXBURGHE Binding.—Leather back, quite plain except for lettering, cloth or paper sides, top gilt, front and bottom edges untrimmed. Sometimes half-Roxburghe to denote leather corners.

ROYAL.—Size of paper. *See* p. 186.

RUBBER Binding.—Rubber bindings as they are termed have been in use with more or less success for many years. The back of the sections is cut so that each leaf is single, a rubber solution is then applied to the back edges, and a special form of canvas applied. In some processes the canvas and solution are together—the principle is the same however.

RUBBING.—‘A rubbing’ is a pattern obtained by rubbing heel-ball, plumbago, or lead pencil over a piece of paper, or something similar, pressed on to the design to be copied.

RUBBING Machine.—Used in linen bleaching.

RUNNER.—The board used in cutting with the plough.

RUNNING Title.—The short title of the book sometimes appearing at the top of both pages, sometimes only on the left hand of the two open pages.

RUN-UP.—Straight, unbroken, and uncrossed lines, blind or gilt, from the top to the bottom of the back of a book.

SADDLE-STITCHING.—Stitching single sections on a stitching machine with the section placed ‘astride the saddle,’ i.e. the section opened with the saddle in the centre.

SAG.—A binding sags when the weight of the leaves pulls the back forward.

SAWING-IN, or Sawn in.—When the cords or tapes are

placed in grooves sawn in the back of the book. The sawing machine is the machine doing the work. In handwork it is usual to use a tenon saw.

SCHEDULE.—In connection with a tender the list of items entering into the quotation of prices.

SCOTCH.—A term used in Lancashire for a waxed shoe butt.

SCRATCHER-UP.—The comb or rake-like implement used to work the paste into the back of the book.

SCREW Press. *See* Standing Press.

SEALS—

SEAL.—The skin usually supplied for bookbinding is that called the Greenland Seal. When a handsome, natural grain is required, the more costly and smaller Newfoundland seal is chosen. The skin of the seal has the same texture all over, and is suitable for hard-rubbing wear.

ACME Seals.—Dyed, plain, dull finish, with natural grain for bookbinding.

ENAMELLED Seals.—Is usually the Greenland seal, bark or sumac tanned, and treated with a mixture of Prussian blue, and Baltic linseed oil, dried in a stove at a high temperature. It is mostly used for the best class of slippers, and when large suitable skins are found, for carriage aprons, etc.

FLESH, Seal.—When the seal is removed from the

'limes' in the earlier part of its dressing it is sometimes split, and the flesh is the middle or part under the grain. The tanning and dressing strengthens it in textile strain, and its equal texture makes it suitable for a medium class work. It is dressed self-colour for book-binding, coloured for leggings, japanned for coach work and enamelled for leggings, etc. *See* Rough Seal.

KID Seals.—A tanned, alum and salt dressed, oil finished skin, very soft, tough and hard wear, for boots, etc.,

LEVANT Seals.—The term denotes the boldest of the grains used either for boots, purses, bags, etc.

MEMEL Seals.—The term denotes a bark tanned, oil dressed, dull, fine, or roe grained skin, which makes a handsome finish for boots, leggings, etc.

ROUGH Seal.—Also used for bookbinding for large books with heavy wear, is the flesh of the Greenland seal taken off in its untanned condition. It is a cheap and economical leather.

STRIPED Seals.—Are similar dressing to the welting, but pencilled across the skin from head to butt, with a broad line of ink, the black part making the binding of the best quality, shoes, etc.

SPLIT Seal.—The underside of seal when, after tanning, split by machinery to reduce

higher priced skins to desired substance. It has not the textile strength of the flesh, but makes a good leather when strain is not given.

WELTING Seals.—Are the Newfoundland Seals tanned in sumac, shaved light, and are used in saddle and harness of the highest quality for welting, beading, etc.

SECTION.—In common use all the leaves folded together, making a complete part, usually one sheet. But the great increase in the variety of paper sizes and the introduction of the roll of paper have made it impossible to say that a section is always a sheet folded.

SEME.—A design composed of small items sprinkled or powdered over the cover.

SERIES Title.—The name of the series of a book usually found at top left-hand of half-title page, but sometimes taking the place of the half-title.

SERIPH.—The crosslines at the ends of the strokes in Roman type.

SET OFF.—When the ink of one page, leaf, or sheet has marked the page, leaf, or sheet touching it, the print is said to have set off. *See* Offset.

SETTING the Headband. *See* Headband. Also used in leather work.

SEWER.—The one who sews or feeds the machines doing the sewing in stitching the sections.

SEWING.—In theory there are three (at least) forms of binding

the sections of a book together.

(1) Sewing. (2) Stitching.

(3) Stabbing. But they overlap to some extent in practice. Stabbing is stitching with wire or thread from side to side, near the back fold, but this must not be confused with oversewing, in which the stitches are smaller and closer. Sewing and stitching are often used synonymously. But the latter describes the sewing of a single section or sections sewn singly to some other substance. Sewing is applied to the work when all the sections of a book are sewn or bound together, either by machine or by hand.

SEWING Frame or Press.—The frame on which the cords or tapes are stretched, to which the sections of the book are sewn.

SEWING Machine.—Machines of various kinds used for sewing the sections together.

SEXTO Decimo.—Book Sizes. *See* p. 186.

SHAGREEN Leather.—Is a shark skin tanned and dyed, with top of grain slightly buffed and then glazed bright.

SHAVINGS.—The paper cut from the edges, etc.

SHAVING Tub. *See* Tub.

SHEARS.—Specially large shears are used for cutting mill-board, and are sometimes called millboard shears.

SHEEPSKINS.

SPLITS.—The sheep-skin split by machinery, then tanned and finished as desired.

SKIVERS.—Before the use of splitting machines the substance of the skins was shaved or skived by hand, and the name is still used by many bookbinders, though such work is not now done by hand.

CREAM Splits.—As above, but machine glazed bright.

CRUST Splits.—Sheep-skin grain splits as taken from the drying sheds.

STRAINED Splits.—Sheep split grains taken from drying shed, wet down. The grain set out and nailed on frame drying them.

BARK Splits.—Of oak, bark tannage, and mostly softened for linings, etc.

BUFF Splits.—Skin bleached, dressed with milk, and finished semi-bright.

FISH Grained Splits.—Skins dyed and finished with small gunpowder grain embossed.

GLAZED Coloured Splits.—The Skin dyed, seasoned, and glazed bright by machine.

SEASONED Splits.—Self colour or dyed skins which have been treated with milk and white of eggs, yielding a soft semi-bright finish without the hardness of the brighter machine glazed skin.

STRAIGHT or Long Grained Splits.—Sometimes termed by bookbinders *roans*; is dyed, seasoned, and machine finished and grained horizontally with straight grain.

SHEETS.—The book before it is bound or folded,

SHORT Title. *See* Bastard.

SHOULDER.—Sometimes applied to the upper-outer corners of the pages of a book.

SHRUNK.—Cloth or leather that has been shrunk before using.

SIGNATURE.—(1) A sheet after being folded. (2) The letters or figures at the foot of the first page of each folded sheet or section. Does not always appear when the page number is at the foot of the page commencing new chapters, etc. In large books after the alphabet has been used once it is the practice to continue AA or 2A, etc. Sometimes both figures and letters are used at the same time.

SIXTEEN mo.—Book sizes. *See* p. 186.

SIZE.—A gluey substance sometimes used in gilding, etc.

SIZES.—For book and paper sizes, *see* p. 186.

SIZING.—Sorting books of similar size into various batches for treatment.

SKIVE.—Paring, which *see*; also skiver, a machine for skiving leather.

SLIPS.—(1) The pieces of cord, string, tape, etc., left on the sewn book for attaching it to the boards. (2) Slips of paper used for various purposes, as 'membering slips,' i.e. the slips of paper on which the numbers and letters of the books to be worked are written, so that the workman has not to refer to the books themselves.

SMALL Paper Edition.—The ordinary edition as distinct from the large paper edition.

SNAKE Skins.—The small South African snake skins have been used for decorating bands on books.

SPANISH Leather.—A name used by many leather dressers and others for any bright grained, straight grained leather.

SPLIT-BOARDS.—When each cover is made of two boards—one thick and the other thin—with the tapes or cords—flattened—between.

SPOTTING.—(1) Foxing, which see. (2) A form of powdering. *See Semé.*

SPRINKLED.—Like 'marbled' this is usually applied to edge colouring and denotes that the edges have been cut and sprinkled with colour. Generally all three edges are so treated and described.

SQUARE.—(1) Boards perfectly true are 'squared.' (2) Squares are the edges of the boards projecting beyond the edges of the leaves.

SQUARING.—Squaring boards before cutting for book covers.

STABBING. *See Sewing.*

STABBING Machine.—Both hand and treadle machines for piercing the pamphlet, etc.

STAMP.—Strictly applicable to most binders' tools, but used in a restricted sense for a metal block having a complete ornament, coat of arms, name, etc.

STANDING Press or Screw Press.—The tall press in which books are placed flat, a number

at a time, for the purpose of subjecting them to pressure.

STAPLES. *See Stitches.*

STARTING.—When a section or sections break away from the back; to give way.

STEINBOK.—A small antelope of South Africa; has a fine skin suitable for high-class binding leather.

STIFFEN.—To stiffen glue, paste, etc. 'Stiffener' is sometimes applied to a thin [mill] board used for stiffening another board or other material.

STITCHES.—In addition to the ordinary meaning, the wire staples ready to be strung on to the stitching machine. *See also Sewing.*

STRAIGHT-EDGE.—A 'true' ruler.

SUB-TITLE.—(1) Half-title, which see. (2) The elaboration of the one title by something following it.

SULTAN.—A coarse cape sheep, nut brown shade.

SUMAC.—A small tree or shrub of many varieties used in tanning.

SURFACE.—The gloss on cloth, paper, leather, etc.

TAG.—(1) The band to which a seal is attached in old parchments and books. (2) The label generally and in particular the *attached* label (pasted, gummed, or glued) for the number, letter, etc., on library books.

TAIL.—The head and tail of a book are the top and bottom; the tailpiece is an illustration etc., at the bottom of a page or the end of a chapter. *See Head.*

TAKE.—A take is a portion of work.

TAPES.—Tapes are used for sewing the sections to, but the term is sometimes applied generically to the strings to which the sewing is carried.

TENON SAW.—A brass-backed saw, used for sawing in, which sec.

TEXT.—The body-matter of a book as distinct from the preliminary matter, etc.

THREAD.—Bookbinders thread is made of linen or cotton.

THREE-QUARTER Bound. *See* Half-binding.

THROW OUT.—(1) When maps illustrations, etc., are mounted at the centre on a crutch-guard, so that they open flat they are said to be thrown out. (2) Also when they are mounted on a blank, page size at the end of a book, so that all, the map, etc., is beyond the margin when the book is open.

TICKET.—Besides the ordinary meaning attached to the work, it denotes the name, label, or other device of the binder or bookseller.

TIES. — Tags of various material to tie from board to board outside the edges.

TIGHT Back.—When the back of the cover is attached to the back of the paper and bends with the book when it is opened.

TINCTURES.—The designs in heraldry to represent colours.

TIPPED-IN. — When a leaf, illustration, map, etc., is pasted in

without guarding it is said to be tipped in.

TITLE.—(1) Title, the title as it appears on the title page. *See also* Half-title, Sub-title, etc. (2) Short title: the title abbreviated. (3) The space on the back of the book where the title is placed. *See also* Bastard title, Running title, Series title, etc.

TOOL.—The implements with which cover, etc., decoration is done, as distinct from loose type. Tooling is the act of doing the work, or the decoration when done. Described as antique, etc., tooling according to style employed.

TRACT. *See* Leaflet.

TREE Calf.—Polished calf with a design resembling the section of a tree. Made by acid staining and rubbing in certain directions.

TRIMMED.—Only slightly cut in re-bound books. In new books the uneven edges only being cut, the 'bolts' being unopened. When the edges are only slightly cut.

TRINDLE.—A 'U' shaped piece of wood or metal placed between the 'cords and boards' of the back to square the fore-edge for cutting.

TRIPTYCH.—A tablet of three leaves hinged so that it can be folded to show a new 'page.'

TRUE.—Straight, exact, square at the sides and corners.

TUB.—(1) Paste-tub: a small oak half-cask shaped receptacle, with a metal rod across the top, for paste. (2) Shaving-tub: the receptacle of the shavings cut from books in the cutting press,

now usually only the framework of the 'stand' of the press.

TURNING up.—The operation of using the trindles and flattening the back of the book to square the fore-edge.

TWELVE MO.—Book sizes. *See* p. 186.

TWILL.—A woven fabric with the appearance of diagonal lines.

TWO-SHEETS-ON.—In use in both hand and machine sewing. Two sheets or sections are sewn as one, the stitch passing from one section to the other with the cord or tape between. *See* All-along.

TYING up.—Tying books after the cover has been glued, while drying.

TYPE-HOLDER.—The metal holder with a wooden handle, in which loose type is screwed for lettering, etc.

TYPE.—Loose letters, etc., for lettering, and tooling, used in a type-holder instead of separate handles. *See also* p. 188 for sizes, etc.

UNCUT.—The margins uncut as issued in rebound books. Paper full size and not cut after binding in new books.

UNCUT Edges.—Edges that have not been cut flush. *See* Unopened.

UNOPENED.—When the folded edges have not been opened with paper knife.

VARNISH.—Bookbinders' varnish is used to give extra gloss to leather and cloth. It is also said to preserve the material. When lettering again, the varnish

can be removed with methylated spirit.

VELLUM Calf Skin.—Sometimes quite transparent. Parchment, which *see*.

VERMICULAR.—Inlaid work like the track of a wriggling worm.

VERSO.—The left-hand page of an open book. *See* Recto.

VIRGIN Parchment.—Parchment made from the skins of newborn lambs, calf, kid, as in book of Koran.

VOLUME.—A bound book complete, or part of a whole. Generally, *but not always*, having its own title page and register, and paging from 1 upwards.

WALRUS Hide.—The skin of the sea lion, bark tanned, and left in its natural thickness is used on buffing wheels for polishing steel, etc. Its use for driving bands is now obsolete.

WARP.—The threads running lengthwise in the cloth, etc.

WASTE.—(1) The loss in cutting leather, cloth, boards, etc. (2) The unwanted leaves of advertisements, etc.

WATERMARK.—The design, etc., in the sheets of paper denoting maker, the mill at which it was made, or the size.

WEEKLY.—Published weekly.

WEFT.—The threads crossing the warp.

WHIP-STITCH.—An American term for oversewing, which *see*.

WHIP-STITCHING.—The same as oversewing.

WHITE Back.—A chrome side dull grained, with unblackened flesh; a Leeds term.

WHOLE Bound. — Generally applied to books bound completely in leather.

WIRE Sewing. — Stitching the sections of a book.

WITNESS. — The same as 'proof,' which see.

WOOF. — The same as Weft, which see.

WRINKLE. — When the leave are uneven on the flat, through damp or bad work.

YELLOW Gold. — Lemon coloured gold-leaf.

ABBREVIATIONS.

A.f. — All faults.

Abr. — Abridged.

A.D. — Anno Domini.

Ad. — Advertisement.

Ann. — Annual.

Ant. — Antique.

Bour. — Bourgeois.

Brev. — Brevier.

B.C. — Before Christ.

B.d. — Binding damaged.

Bdg. — Binding.

Bds. — Boards.

Bkn. — Broken.

Bkrm. — Buckram.

B.l. — Battered letter.

C. — Circa = about.

Cap. — Caput = Chapter.

Cc. — Chapters.

Chaps. — Chapters.

Caps. — Capitals (letters).

Cat. — Catalogue.

Cf. — Calf.

Cl. — Cloth.

Cp. — Cap = Foolscap.

Cr. — Crown.

Del., Delt. — Delineavit = he drew it.

D.c. — Double column.

D.crn. — Double crown.

D.e. — Deckle edged.

Dmy. — Demy.

Doz. — Dozen.

Ent.S.H. — Entered at Stationers' Hall.

Et.seq. — Et sequentes = and following.

8vo. — Octavo.

Ed. — Edition.

Ex. — Extra.

Fec. — Fecit = he did it.

Fin. — Ad finem = at the end.

Fcp. — Foolscap.

F.c.g. — Fore edge gilt.

Fig. — Figure.

Ff. — Folios.

Fo. — Folio.

G.e. — Gilt edges.

G.ex. — Gilt extra.

Gr. — Grain.

H.b. — Half bound.

Hd. — Head.

Hdbd. — Headband.

Hf. — Half.

Inv. — Invenit = he designed it.

Ib. — Ibidem = in the same place.

Inf. — Infra, below.

Intro. — Introduction.

Id. — Idem = the same.

I.e. — Id est = that is.

Ill. — Illustrated.

Imp. — (1) Imperial. (2) Imperfect.

Kal. — Kalendae = Calends.

Jnl. — Journal.

- L.s.—Locus sigilli = the place for the seal.
 L.—Latin.
 L.c.—Lower case = small letters.
 Lan.—Language.
 Lat.—Latin.
 L.p.—(1) Large paper; and (2) Long primer.
 Lh.—Leather.
 Mar.—Margin.
 Mod.—Modern. *See* Types.
 Mor.—Morocco.
 MSS.—Manuscripts (MS. singular).
 Mt.—Mounts or Mounted.
 N.b.—Nota bene = note well.
 N.d.—No date.
 No.—Numero = number.
 Non-p.—Non-pariel.
 N.s.—New style.
 Ob.—Obiit = died.
 O.cf.—Old calf.
 Op.—Opera.
 O.p.—Out of print.
 O.s.—Old style.
 Pxt.—Pinxit = he, or she, painted it.
 Pan.—Panel.
 Par.—Paragraph.
 Parch.—Parchement.
 Patt.—Pattern.
 Per.—(1) Persian. (2) Periodical.
 P.g.—Paste grain.
 Phot.—Photographs.
 Port.—Portrait.
 Pp.—Pages.
 Pph.—Pamphlet.
 Pref.—Preface.
 Pts.—Parts.
 Q.—Quarterly.
 Q.b.—Quarter bound.
 Q.v.—Quod vide = which see.
 Rom.—Roman.
 Rox.—Roxburghe.
 Roy.—Royal.
 Ryl.—Royal.
 R.c.—Round corners.
 Rus.—Russia leather.
 Sc.—Sculpsit = he or she engraved it.
 S.a.—Sine amio = without date.
 S.c.—Small capital letters.
 Sec.—Section.
 Ser.—Series.
 Sig.—Signatures.
 Supp.—Supplement.
 Syn.—Synonym.
 Synop.—Synopsis.
 T.e.g.—Top edge gilt.
 Temp.—Tempore = in the time of.
 Typo.—Typographer = printer.
 V.g.—Verbi gratia = for example.
 V.—Vide = see.
 Viz.—Videlicet = namely.
 Vol.—Volume.
 Vv.ll.—Variæ lectiones = various readings.
 V.y.—Various years.
 W.a.f.—[Sold] With all fault.
 W.f.—Wrong fount.
 Y.—Year.

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